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ABSTRACT

Descriptions by various professionals of 70 multiply handicapped deaf-blind children evaluated at the Syracuse University Center for the Development of Blind Children were examined for terminology used to describe the child and his life situation. Purposes were to develop some epidemiological characteristics of the multiply handicapped, deaf-blind population; identify terminology; classify terminology used by profession of examiner and by categories of diagnostic import (e.g., social-emotional, physcial-medical, communicative); and develop suggestions and implications for utilization of this data to improve the evaluation process and communication of evaluation results. Insepection of terms in six professional reports on each child showed 1,646 terms, and no term occured over four times. A general plan for the use of a formalized video-tape protocol for communication between agencies and as a means of standardizing observation procedure was evolved. It is suggested that the value of professional terminology be examined both in client contact and in student training. The above project initiated research and training proposals based on the above findings. Appendixes include statistical reports from the American Association for the Blind, terms used in initial and final analyses, and recommendations listed in report summaries. (KW)

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AN ANALYSIS OF EVALUATION PROCEDURES, DISABILITY TYPES, AND RECOMMENDED TREATMENTS FOR 100 DEAF-BLIND CHILDREN

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SIGNIFICANT FINDINGS FOR THE REHABILITATION WORKER

The case records of a group of 70 children were selected from referrals of the American Foundation for the Blind. They were originally referred to the Center as deaf-blind for the purpose of recommending a treatment program. The children received a team evaluation which took approximately four days. During this period representatives of the fields of medicine, education, speech and hearing, psychology, and social work evaluated and wrote reports on each child. Terms used in these reports are the basic data used in this project.

1. Of the seventy deaf-blind children whose records were inspected, 57 were living at home or with foster parents, that is, not in a residential program. The children ranged in ages from 1 year 10 mos. to 21 years. They came to this Center from 21 states. The group was equally divided between sexes and came from families ranging in size from 0 to 13 siblings. Sixteen percent of the group were "only children." Concerning the congenital nature of the group's problem, 50 percent had birth weights under 5 pounds. Twenty-six of the children should be between the ages of 14 and 27 years now. Some have died. Some are gainfully employed. An important aspect of this planning project should be the follow-up study of this older group with respect to determining the effectiveness of the earlier evaluation records when matched with today's performance of the child educationally and vocationally.

2. Seventy percent of the 100 records of the Center were suitable for inclusion in this terminological quantification study. In the initial "count" of terms used by the interdisciplinary evaluation team to describe the children, 1033 terms were used to describe 20 cases. The final terminological count produced 2,828 terms descriptive of the 70 children. The elimination of redundant terms reduced this to 1,646 terms. The number of terms used and the distribution of these terms throughout descriptive categories of the child's physical, social, personal and family condition varied widely across professions. The high redundancy of terms used suggests clearly a need for improved procedures for describing what is seen in the evaluation process and for communicating examination findings.

3. A conference of consultants, reviewing the preliminary results of this planning grant have described a technique for a viedo-tape evaluation protocol which may prove useful as a means of enhancing the examination procedure for deaf-blind and other severely multiply handicapped children.

4. Programs preparing specialists to manage clients with severe multiple disabilities such as the deaf-blind child should stress scientific foundations of learning, early post-natal intervention, clinical teaching and research competence.

5. Both vocational futures and social viability of the population studied are determined very early in life.

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INTRODUCTION

Since 1957 the Syracuse University Center for the Development of Blind Children has provided a comprehensive diagnostic and evaluation service for multiply handicapped, deaf-blind children. The majority of children seen during this period have demonstrated two or more of the following problems: visual disability, auditory impairment, neuromotor dysfunction, the brain injury syndrome, mental retardation, psychopathology, and/or cultural deficits. All children have demonstrated some degree of verbal disability. Most children have been essentially nonverbal.

It is because of the complex behavior patterns of such multiple disabilities that a multidisciplinary evaluation team consisting of specialists in pediatrics, neurology, ophthalmology, psychology, speech pathology, audiology, social work, and special education has examined each child. The children have been observed and tested over a three to five day period, during which time they reside near the clinical facilities of Syracuse University Center for the Development of Blind Children and the State University of New York Upstate Medical Center. The children have been accompanied to the evaluations by their parents and one or more case workers. It is within this context that the clinical records used in this study of the multiple handicaps of deaf-blind children were accumulated.

Because of the relatively limited published material describing the skills of such children, and because of the diversity of behavior patterns within this group, it seemed untenable at the outset of the clinical program to attempt to develop and utilize a formal test battery or rigid experimental design. Instead, it was hoped that the examination of a large number of children over an extended time period might lead to a framework of generalizations within which more specific experimentation and regularized clinical procedures could be developed.

Three apriori assumptions were made in this research planning project:

1. The diagnostic and evaluative procedures now used with deaf-blind children are not sufficiently powerful to allow the professional worker to complete his procedures without reservation.
2. The clinical examiner is confronted by such an array of testing problems that priorities need to be established for research.
3. The detailed inspection and classification of the terminology used in the clinical reports describing deaf-blind children will be useful in the development of research to improve the effectiveness of clinical examiners.
4. New evaluation techniques for the deaf-blind child will surely be useful adjuncts to the evaluation of other severely multiply handicapped children.

Purpose

The registry of the American Foundation for the Blind includes 417 children ranging in age from infancy to 20 years and scattered geographically throughout the 50 states (Appendix A). Over the past nine years, 100 or approximately 25% of the registry have been evaluated at the Center for the Development of Blind Children at Syracuse University utilizing personnel of the Syracuse University Division of Special Education and Rehabilitation and the adjacent State University of New York College of Medicine. The extensive case records on children evaluated contain reports by: (a) medical, (b) educational, (c) psychological, (d) social service and

(e) communication disorders specialists.

The purpose of this planning grant was to utilize the personnel of the evaluation team and the records of the Center as well as the facilities provided through a working relationship with the American Foundation for the Blind to develop the following:

1. Some epidemiological characteristics of the multi-handicapped, deaf-blind population.
2. Identification of the terminology used to describe multi-handicapped, deaf-blind children.
3. Classification of terminology used to describe multi-handicapped, deaf-blind children by profession of examiners.
4. Classification of terminology used to describe multi-handicapped, deaf-blind children within categories of diagnostic import, e.g., social-emotional, physical-medical, communicative, etc.
5. Inspection of recommendations for multi-handicapped, deaf-blind children made by professions within categories of function and/or behavior.
6. Suggestions and implications for utilization of the above data to improve the evaluation process and the communication of the evaluation results between clients, agencies and professionals.

PROCEDURE

This research is essentially the categorization of terminology extracted from the case records of deaf-blind children evaluated at the Syracuse University Center for the Development of Blind Children.

The general procedure was to read each report of each professional examiner and to catalogue each professional vocabulary term or clinical descriptive term in the child's record. Seventy of the 100 case records of the Center were suitable for inclusion in the study. Of the thirty eliminated, the majority were re-evaluations which would have compounded the data. Some files were eliminated because they were incomplete; others were special case records of children seen for only a partial evaluation for a limited and specific test.

The initial selection of cases was taken from those children who were referred to the S.U. Clinic by the American Foundation for the Blind. Each child seen in this group had undergone a comprehensive diagnostic examination given over a three to five day period. Each case folder contained reports made by individuals on the evaluation team. Of the examiners preparing these reports representing 18 professions, 6 professions were chosen for detailed analysis as part of the present study. Reports of the pediatrician, neurologist, ophthalmologist, audiologist, psychologist and social worker were selected. Reports from these specialists with the exception of the social worker occurred regularly in the cases. The social workers' reports were found only in the later cases examined since this discipline is the most recently represented on the present team. It was important, however, to include social case work since the concerns of members of this discipline were suspected to be different from others on the team. Reports of the speech pathologist and educator were frequently included in the summary reports only, and in this form were not suitable for analysis.

After initial case selections were made, the reports of each specialist were considered together. These were used as the source for extraction of the descriptive terms and were the basic data used in the study. All descriptive or other professional terms included in these reports were categorized. Initially it was believed that the incidence of term occurrence would be a valuable statistic. This quantification was attempted in the beginning analysis and is reported as the "initial terminological analysis" based on the first 20 cases. As the cases were reviewed, however, the number of terms increased considerably and their frequency of occurrence decreased. It became apparent that the usefulness of this bulky data for planning purposes would be enhanced by categorization or grouping rather than enumeration of frequency of occurrence.

The results of the initial terminological analysis made it possible to outline the general categories for use in grouping the terms. This also indicated the considerable disparity of terms within disciplines and the overlap of functional and behavioral terms covered between disciplines. Classifications of terms in this way allowed for the further development of a behavioral model based upon these groupings. The remaining procedure in this study was called the Final Terminological Analysis which included the further subdivision of meaningful subcategories which could be used for the description of a group of multiply-handicapped children.

The fourth analysis used recommendations taken from the summary report on each case. These were listed in similar fashion to the descriptive terms and their categorization followed the same guidelines as were derived from that analysis.

Since a specific structure was not available for this type of analysis, the procedure had to be developed as the study progressed. The following outline is a description of the steps taken to develop this procedure. The results include a more detailed description of this process by which these data were organized with the resulting tables and figures as they developed.

Phase 1. Choice of cases and epidemiological description of the group: 70 cases were chosen which included the entire population referred by the American Foundation for the Blind. All children had been identified as having visual and auditory problems which were so severe that treatment was not available for them in special programs for either the deaf or the blind. Further description of this group was taken from the records at the Center for the Development of Blind Children and the American Foundation for the Blind. General descriptive information included age at evaluation, sex of child, attempts at educational placement, family structure and state of residence.

Phase 2. Initial terminological analysis. All descriptive terms were listed from each of 20 reports. Their incidence of occurrence was also tabulated and these data were grouped in six general categories. The remaining terms were then listed for seventy cases and duplicate terms were removed.

Phase 3. Final terminological analysis. As the general categories from the pilot list were examined and compared with terms gathered from the complete list, it was possible to regroup and add more specific categories. It was determined that five general areas of consideration came from the collected lists:

a. etiological factors
b. identifying information about the child and his family
c. description of the child
d. specific family traits
e. treatment which had been given

In addition to this, the descriptive terms about the child and his family could be further categorized into physical and behavioral information.

As the terms were listed in these categories, other classifications came into focus which were more specific to the individual specialist but which also added descriptive depth to the areas. These subcategories made it appropriate to present a more detailed classification system for the entire reporting procedure than had previously been thought possible.

Phase 4. Classification of Recommendations. Each case report contained a separate recommendation unit. These were listed and grouped in four categories:

1. physical - medical
2. psycho-educational
3. placement
4. family

Phase 5. Research Conference. As an initial part of the follow-up of these terminological data, it was proposed that a video-tape protocol be developed wherein experts in the evaluation of deaf-blind children might use lists of these terms as check-rating guides in the evaluation of children. A conference was called, the results of which clarify the nature of the focal research population parameters, the type of situations most critical for observing a child's behavior, and the means of rating best suited to the terminological data.

Phase 6. The final results of this investigation, which was a pilot study, took the form of appendix E and appendix F: a program development grant for the training of specialists in the education and evaluation of the multi-handicapped and a research proposal for the development of video-tape protocols as part of the evaluation tools of the examining team.

RESULTS

The presentation of this result section is difficult in the planning project schema because the data collected are a result of the experimenters efforts;but the real result of the planning study is, of course, the long range research design for which the planning was undertaken and the data collected.

In order to resolve this problem, the following format was selected. First, the Results Section is both a presentation of the data collected and some discussion of the data, the latter being a known departure from traditional good form in research reporting. The long term results of the planning study, based on the data collected are reported in Appendix E and F: One, a training grant proposal, the other, a research proposal.

The Discussion Section of this planning report is a discussion of the varieties of research and demonstration projects suggested by the data collected and reported.

Since the data are presented directly without statistical treatment, written discussion of the results is minimized. The reader of this report will be generally familiar with the problems of severely multiply handicapped children and, from that frame of reference, should be able to understand the tables without extensive accompanying text.

It should be recognized that the progression of the project from the collection of terms to final analysis is a result in itself. In effect, the terms as they were collected formed the mold for further grouping and this, in turn, added categories and sub-categories so that finally the beginning of a model was formed. It is the development of this research model, based on the actual terms used, which is one of the important results of this study though at present it must be incomplete. Essentially, it is based upon a functional approach using definite descriptive terms as they apply to a specific group of children. These terms are the basis for the category formation This method may be especially valuable in the future since it approaches the problem of evaluation and testing data retrieval in a way which will offer an orderly and possibly a quantifiable method.

The data collected are presented in order stated in the procedure section; viz.

1. Epidemiological description of the multi-handicapped, deaf-blind population.

2. Identification of the terminology used in describing multi-handicapped, deaf-blind children.

3. Classification of terminology used to describe multi-handicapped, deaf-blind children within professions.

4. Classification of terminology used to describe multi-handicapped, deaf-blind children within categories of diagnostic import, e.g., social-emotional, physical-medical, communicative, etc.

5. Inspection of recommendations for multi-handicapped, deaf-blind children made by professions within categories of function and/or behavior.

Epidemiology

Seventy cases were seen on referral from the American Foundation for the Blind. At the time of the evaluation, they resided in twenty-one different states (Table 1). It should be noted that this was their state of legal residence and not necessarily the place where the child was residing at the time of the evaluation. Some children, especially those in programs for the deaf-blind were going to school in one of the several centers for deaf-blind children. During the ten-year period covered by this study, programs for the deaf-blind were located in the states of: Alabama, Illinois, Massachusetts, Michigan, New York, South Dakota and Washington.

The incidence by states listed in Table 1 should not be taken to represent the populations geographic distribution. Some children, such as those from New York came for evaluation because of proximity to the Center. It was a matter of economy that brought them to the Syracuse Center along with the knowledge that such an evaluation unit existed locally. The states of Louisiana, Pennsylvania and Illinois were heavily represented because of special programs or legislation which made it possible to provide partial support for the children's transportation to Syracuse and to furnish adequate follow-up after the evaluation. Louisiana in particular had been organizing evaluation centers throughout the state to work with severely handicapped children. Illinois, by the same token, was developing a comprehensive treatment program for the children known as deaf-blind. Professional communication developed between Syracuse and the Illinois program facilitated referral of children to this center.

Age and Sex

Children ranged in age from one year ten months, to twenty-one years eight months. Table 2 lists the children's ages at time of evaluation and the frequency for each age. There were thirty-four males and thirty-six females in this group. As can be seen from the table, fifty-one of the seventy children were between three and ten years of age. While it is generally recognized that younger children have a better prognostic picture than older, it may generally be said that younger deaf-blind children were not referred either because they were not at a developmental age old enough to be considered or their visual or auditory disabilities were not suspected. The older group seen was commonly referred for specific disorders and recommendations about them. A child with some degree of vision would need specific programming to make him most efficient. The latent auditory abilities of another child could also be stimulated when recognized by special assessment techniques.

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The Family

Table 3 indicates the number of siblings for each client. Family size varied from one child to fourteen children. It was not possible to retrieve data about the rank ordering of these children in their family. Sixteen percent of the group were "only children." The group was rather equally divided into families on 1, 2, 3 or 4 children. Twenty of the children came from families ranging in size from four to 13 siblings.

Educational Placement

At the time of evaluation the children were placed in eight types of programs. These are listed in Table 4. The fact that there were eight different types of programs might lead one to believe that the children are placed in a variety of settings. One gets considerably more concerned,

TABLE 1

Frequency of Cases Evaluated at the Syracuse University Center for Development of Blind Children by State of Residence at Time of Evaluation.

State	Number of Cases
New York	13
Louisiana	8
Pennsylvania	7
Illinois	6
Georgia	5
New Jersey	5
Florida	3
Kentucky	3
North Dakota	3
Michigan	2
Missouri	2
Ohio	2
Tennessee	2
Texas	2
Colorado	1
Mississippi	1
Oklahoma	1
South Dakota	1
Virginia	1
Washington	1
West Virginia	1
Total States 21	Total cases 70

TABLE 2

Age of 70 Deaf-Blind Children at Time of Evaluation

Age at Evaluation	Number of Children	Accumulative Total
0 - 11 mo.	0	0
1 yr. - 1 yr. 11 mo.	1	1
2 yr. - 2 yr. 11 mo.	3	7
3 yr. - 3 yr. 11 mo.	7	11
4 yr. - 4 yr. 11 mo.	11	22
5 yr. - 5 yr. 11 mo.	7	29
6 yr. - 6 yr. 11 mo.	3	32
7 yr. - 7 yr. 11 mo.	10	42
8 yr. - 8 yr. 11 mo.	6	48
9 yr. - 9 yr. 11 mo.	7	55
10 yr. - 10 yr. 11 mo.	2	57
11 yr. - 11 yr. 11 mo.	0	57
12 yr. - 12 yr. 11 mo.	4	61
13 yr. - 13 yr. 11 mo.	2	63
14 yr. - 14 yr. 11 mo.	3	66
15 yr. - 15 yr. 11 mo.	0	66
16 yr. - 16 yr. 11 mo.	0	66
17 yr. - 17 yr. 11 mo.	1	67
18 yr. - 18 yr. 11 mo.	0	67
19 yr. - 19 yr. 11 mo.	2	69
20 yr. - 20 yr 11 mo.	0	69
21 yr. - 21 yr. 11 mo.	1	70

TABLE 3

Number of Siblings at Time of Evaluation for 70 Deaf-Blind Children.

Number of Siblings	Number of Children
0	11
1	13
2	13
3	13
4	4
5	7
6	2
7	3
8	2
9	0
10	1
11	0
12	0
13	1
Total	70

TABLE 4

Placement of 70 Deaf-Blind Children at Time of Evaluation.

Placement	Number of Children
Home (no special treatment)	39
Foster Home	4
Home - Attending Special Classes	14
Residential	3
Residential - Program for Blind	3
Residential - Program for Deaf	3
Residential - Program for Deaf-Blind	2
Residential - Program for Mentally Retarded	1
Residential - Program for Crippled Children	1
Total	70

however, when Table 4 is inspected further. Only thirty-one of the seventy cases were actually in a program. The fact that thirty-nine children were at home with no program offered attests to the extreme problems encountered by families seeking placement for the child. Six placement situations were residential which again indicates an inability on the part of family or community to provide for this group.

Birth Weight

Thirty-two of the seventy cases weighed less than five pounds at birth as may be noted in Table 5. This would appear to be a rather striking incidence related to prematurity. A large proportion of the group apparently had suffered from rubella which is not usually associated with prematurity or low birth weight. The relationship of birth weight to rubella, or for that matter, any further etiological factors were not investigated on an incidence basis. The fact of multiplicity of disorders cannot be denied. The present data were not organized to describe these or to present a case for further developing the group's nature. This factor and other similar ones are available in the records: especially in the case of growth profiles and percentiles as presented by the medical examiner. Of the many factors isolated, one of the most interesting would seem to be the relation of these etiological factors to particular early childhood disorders.

Table 6 provides an interesting opportunity for follow-up evaluation. Particularly since 26 of the children have now reached the age of 14 or more years and therefore should be in some placement relative to vocational futures. Two of these 26 are known to be living alone and gainfully employed. One was honored as handicapped woman of the year in Michigan. The present work skills and vocational future and self-help for the remainder of this older group should be explored by follow-up study.

TABLE 5

Distribution of Birth Weights of 70 Deaf-Blind Children

Weight in Lbs.	Frequency	Accum. Total
1 lb. to 1 lb. 15 oz.	2	2
2 lb. to 2 lb. 15 oz.	16	18
3 lb. to 3 lb. 15 oz.	6	24
4 lb. to 4 lb. 15 oz.	8	32
5 lb. to 5 lb. 15 oz.	15	47
6 lb. to 6 lb. 15 oz.	10	57
7 lb. to 7 lb. 15 oz.	9	66
8 lb. to 8 lb. 15 oz.	2	68
9 lb. to 9 lb. 15 oz.	2	70

TABLE 6

Current Ages of the Multiple-Handicapped Children Evaluated in this Project.

Current Age	No. of Children	Cumulative No.
7	2	2
8	5	7
9	8	15
10	7	22
11	8	30
12	8	38
13	6	44
14	4	48
15	4	52
16	8	60
17	1	61
18	0	61
19	0	61
20	3	64
21	0	64
22	1	65
23	0	65
24	1	66
25	2	68
26	1	69
27	1	70

Initial Terminological Analysis

In addition to the enumeration of epidemiological data on this population, an objective of the research project was to inspect the terminology used by professional clinicians to describe the children. Initially the approach was to list each professional term as it occurred in a report and then to tally the number of each such terms and report these as a percentage of the possible occurrence. However, after inspecting only 20 case records, 1033 terms had been recorded with varying frequency from one to eight. At this point, it was clear that the data would have to be further codified and categorized in order to be manageable. Tables 7 through 11 show the number and frequency of occurrence of terms for arbitrary categories by professional field, vix., pediatrics (Table 7), neurology (Table 8), ophthalmology (Table 9), psychology (Table 10), and audiology (Table 11).

The following comparisons within tables point up the contrast-emphasis within professions.

1. Forty-one percent of the terms used by the pediatrician are concerne with tests of physical status and health while only 15% relate to behavioral and functional skills.

2. Similarly, 63% of the neurological terminology is concerned with physical status and health and 18% is concerned with functional skills and behavioral characteristics.

3. Seventy-four percent of the ophthalmological terminology describes physical health while only 3% relates to behavior- visual or general.

4. Contrary to the above trends, 61% of the psychological report terminology was concerned with non-psychometric description of the child while only 15% of the terms related to formal psychometric tests.

5. Similarly, 41% of the audiometric terms related to observational judgment while only 32% referred to formal test procedures.

6. With respect to all of the above, it is disturbing that the mean incidence of a given term is in no professional area generally, nor in any category within a professional report as great as four.

7. Although there are numerous other specific areas of concern developed by these data, the above strongly suggests the need for more standardized observational procedures. For example, the two most consistent entries in the psychological report were (1) that the mother was the informant and (2) commentary on toilet training.

Across professions, it can be noted that, it was not meaningful to use the same sub-categories for data summary; for example, six pediatric categories seemed advisable, but only three audiologic categories appeared to be discrete.

Professional participants

A related observation of the data taken to this point concerning the number of professionals working in the Center over the time period of case records accumulated for this study is made in Table 12. This large number, 57, of personnel was presumed to have in some ways contributed to the large professional vocabulary used since each esaminer has his own individual preferences in both formal tests and informal descriptive terminology.

TABLE 7

Number and Frequency of Occurrence of Terms Utilized in Reporting Evaluations of Deaf-Blind Multiply Handicapped Children (Pediatric).

	A*	B	C	D	E	F	TOTAL
Number of terms reported	154.	109.	56.	7.	26.	21.	373.
Total incidence of terms	399.	316.	155.	8.	77.	23.	988.
Mean incidence of each term	2.56	2.89	.36	1.13	2.96	1.09	2.65
Percent of terms/category	41.	29.	15.	2.	7.	5.	99.

*A. Physical status and health

B. Family relations and family health

C. Functional skills and behavior judgments

D. Etiology

E. Treatment

F. Recommendations

TABLE 8

Number and Frequency of Occurrence of Terms Utilized in Reporting Evaluations of Deaf-Blind Multiply Handicapped Children (Neurology).

	A*	B	C	D	E	TOTAL
Number of terms reported	164.	30.	49.	7.	9.	259.
Total incidence of terms	493.	95.	121.	13.	21.	743.
Mean incidence of each term	3.00	3.17	2.47	1.86	2.33	2.87
Percent of terms/category	63.	12.	19.	3.	3.	100.

*A. Physical status and health

B. Family relations and family health

C. Functional skills and behavior judgments

D. Etiology

E. Treatment

TABLE 9

Number and Frequency of Occurrence of Terms Utilized in Reporting Evaluations of Deaf-Blind Multiply Handicapped Children (Ophthalmology).

	A*	C	D	E	F	TOTAL
Number of terms reported	75.	3.	3.	7.	13.	101.
Total incidence of terms	193.	9.	7.	12.	24.	245.
Mean incidence of each term	2.57	3.00	2.33	1.71	1.84	2.42
Percent of terms/category	74.	3.	3.	7.	13.	99.

*A. Physical status and health

B. Family relations and family health (not applicable)

C. Functional skills and behavior judgments

D. Etiology

E. Treatment

F. Recommendations

TABLE 10

Number and Frequency of Occurrence of Terms Utilized in Reporting Evaluations of Deaf-Blind Multiply Handicapped Children (Psychology).

	A*	B	C	D	TOTAL
Number of terms reported	44.	139.	10.	30.	223.
Total incidence of terms	76.	213.	23.	48.	360.
Mean incidence of each term	1.73	1.53	2.30	1.60	1.62
Percent of terms/category	20.	62.	4.	13.	99.

*A. Psychometric efforts

B. Non-psychometric descriptive

C. Family-Social

D. Recommendations

TABLE 11

Number and Frequency of Occurrence of Terms Utilized in Reporting Evaluations of Deaf-Blind Multiply Handicapped Children (Audiology).

	A*	B	D	TOTAL
Number of terms reported	24.	31.	20.	75.
Total incidence of terms	78.	77.	41.	196.
Mean incidence of each term	3.25	2.48	2.05	2.61
Percent of terms/category	32.	41.	26.	99.

*A. Formal tests

B. Observations

D. Recommendations and conclusions

TABLE 12

Number of Professional Workers Co-operating in Examinations

Profession	Number
Administration (Co-ordination)	3
American Foundation for the Blind Representative	3
Audiology and Education of the Deaf	5
Education	4
Gynecology	1
Neurology	6
Ophthalmology	2
Orthopedic Surgeey	1
Otology	3
Pediatric Cardiology	1
Pediatric Endocrinology	3
Pediatrics	2
Physiatry	1
Psychiatry	2
Psychology	14
Social Work	2
Speech Pathology	3
Vocational Counseling	1
Total	57

Final Terminological Analysis

As the listing of terms from four disciplines for 20 cases was completed, a review and appraisal revealed too extensive a variety of terms to warrant continued listing without improved categorization and some procedure to control redundancy.

This was especially the case with the terms used by the neurologist and pediatrician. The numbers of these terms for each discipline are given in Table 13. There are three lists represented in the Table. The first (raw data) is taken from tabulation sheets used during the initial collection procedure. Obvious duplicates were removed in column two of Table 13 (Duplicate Terms). Finally, the lists of terms were again inspected and "similar" terms were grouped. By handling the lists in this manner, the number of terms was reduced to 53 percent original size. Examples of similar terms are "hyper-active" and "hyper-kinetic" as behavioral terms; or "aphakic" and "lens removed by cataract surgery" in the physical area.

The total number of terms used was still large. As may be noted in Table 13, the terms used in the medical reports accounted for approximately 75 percent of the total. As the new list of terms was examined, however, it was obvious that the original categories were not comprehensive enough for the present data. New groups were needed.

As the initial 20 case records were inspected, several alternatives were suggested to improve the presentation of the terms for lucid inspection. Six general categories were distinguished by inspection of the lists of terms. It was felt that these categories were comprehensive enough to include all terms used and yet were discrete in their content. These groups are presented in Figure 1.

Those terms considered to be general information are usually classed as face sheet items in these reports. Basic descriptive information about the child and his family is presented here. Typical terms describe the number of siblings and other general information about the family structure. The part relatives play in the total family life was catalogued here along with general socio-economic information.

Category two lists terms used which might have been causes of the child's condition. These terms usually describe some physical condition in utero or during infancy rather than environmental factors which could also have caused the deviant behavior. They were often taken from informants accompanying the child during evaluation.

The largest category consists of terms describing the child's traits. All terms actually describing the child either physically or as he was behaving in the environment when observed by the examining specialist were included in this category. This yielded a wide range of descriptive terms which were further divided later so that more meaningful classification could be made. The next group of terms could have been included in either the physical or behavioral category. It was believed however that the list of diagnostic and descriptive tests could be more appropriately presented separately from the other data. The tests themselves are lists of techniques rather than descriptive of the child. It was also believed that listing of the variety of formal procedures attempted would have some merit. The result was to further point to the fact that very few formal test

FIGURE 1

Classification of Terms Used by Specialists in Examination Reports

- I General Information
  - Non Family
  - Family
    - Parents
    - Other family
  - Child
    - Descriptive
- II Etiological Factors
  - Familial (hereditary)
  - Traumatic
  - Birth Defects
  - Congenital
  - Disease
  - Environmental
- III Child's Traits
  - Physical
    - Normal
      - Sensory Communication
      - General Physical
      - Cerebral
      - C.N.S. less Cerebral
      - Internal
    - Abnormal
      - Sensory Communication
      - General Physical
      - Cerebral
      - C.N.S. less Cerebral
      - Internal
  - Behavioral
    - Communication
    - Social
    - Motor
    - Learning
    - Self help
    - Aggressive
    - Self-stimulated
  - Diagnostic Tests
    - Social
    - Physical
    - Learning & Communication
- IV Family Traits
  - Physical
  - Behavioral
- V Treatment
  - Child
    - Surgical
    - Therapeutic
    - Diagnostic
    - Medication
  - Family
    - Surgical
    - Therapeutic
    - Diagnostic
    - Medication

TABLE 13

Original and Modified Frequencies of Total Terms Used by Each Discipline

Discipline	Original Count	Duplicate Terms	Modified Total
Neurology	1106	733	644
Pediatrics	850	807	445
Ophthalmology	269	236	132
Audiology	120	77	69
Psychology	379	321	287
Social Work	104	86	69
Total	2828	2260	1646

procedures are used with these children. It should also be noted that a term being listed was considered "neutral". That is, the naming of a test could have been for the reason that it was either usable or not used for the evaluation of that child--it was merely mentioned in these particular specialist's reports.

The fifth category of terms related to family traits. This category included terms more descriptive than were classed in the general information group. As was the case with the children's traits, these were clearly divided into physical and behavioral. Many of the terms included here relate to the mother's health during pregnancy. Some of them could be included in the etiological grouping. This factor could well be a reason for uniting these categories or for reclassifying some of the terms at a later date. For this study, however, it was appropriate to leave the groups separated.

The final category listed terms applying to treatment given the child or the family. These terms relate to previous treatment which was noted either in the records or from interview material taken during the evaluation. The variety of treatments listed in this category is only a minimum of those actually attempted. Many are not reported in this list because the examiner undoubtedly felt that the description already presented in the case history was adequate. The category itself could well be structured further for future use and a check list developed that would be especially valuable for assuring a comprehensive collection of records for evaluation.

The total number of terms reported by the examiners was divided into the six general categories as described above. Two of these groups, child traits and family traits, were further divided into lists of terms considered as physical and behavioral. This produced nine subtotals as seen in Table 14. The total list of all terms used in this category is provided in Appendix C. Nearly two-thirds of the 1646 terms were descriptive terms relating directly to the child's physical or behavioral traits. These were concerned, of course, with a wide variety of traits which in itself attests to the thoroughness of the evaluations and the concern of the various specialists to depict the child as accurately and specifically as possible. As was described above and presented in Table 14, the final list of terms for each category was developed through a process of removing the duplicate terms and grouping those with similar meanings. This table summarizes the grouping process as it took place within each discipline and for each descriptive category.

Table 15 lists the final frequency of terms for each category and discipline. This grouping is the one used for further classification into sub-categories. The distribution of terms in this table stimulates several questions about the relationship of terms between disciplines. The relative number of terms used for instance, should be consistent with what one would suspect from certain disciplines. The medical profession might be expected to account for two hundred of the two hundred and eighteen normal physical traits descriptive of the child. It is more difficult to understand why reports from neurology and psychology should account for four hundred and forty-one of the five hundred and ninety-four behavioral terms. The social work reports alone equal the neurology and the pediatric in the area of general information. When it comes to family behavior however, where one might expect this social work report to have a special depth, the number of terms used are disproportionately small.

The medical specialists accounted for the largest number of terms. They also had the greatest reduction of terms through the modification process. Several factors may account for this. The terms used by the medical profession may be specific to one condition and should be applied as specifically as possible to a single child. In a combining process for the purpose of this study several of those terms may easily be grouped together. One example of this relates to those terms used to describe either left or right. The modified list presented here did not distinguish dominance in this manner. Another example had to do with anesthesia. This description in the physician's report named the various types of anesthetics. These were condensed in the modified list. Another possibility could be that the medical examiner has more information to report since there are more items which do not require overtly cooperative behavior.

There obviously are some factors here which are not represented by term counting or possibly even by the terminology used. Some categories may be covered by words or phrases which were not itemized as descriptive terms to be used in this study. Such a possibility will be considered later as a direction for future research.

Interesting speculation occurs around the specificity evident in grouping of terms attributed to some specialists. The psychological reports, for instance, devoted two hundred and nineteen of the two hundred and eighty-one terms isolated from his report to child behavior. This may be laudable but it is difficult to determine from the data presently available whether or not other factors such as etiology or family behavior were considered as significant.

The ophthalmology and audiology reports seem especially conscious of their specific interests. Neither seems very concerned with factors other than the child's senses. The ophthalmology reports consistently report only characteristics related to this area. Whether or not this is a true statement of the specialist's role may be important to study further. Such approaches should be directly aimed at a better knowledge of the specialist's perceived role and of his actual contributions to the total evaluation effort. Careful analysis of such factors as these should be especially helpful in eliminating redundancies in the evaluations caused by lack of communication between specialists.

The terms used by each specialist for each of the ten categories are presented separately in Tables 17-22. This allows for a clearer observation on the number of terms used by each specialist and their relative placement within each classification system. A few comments are pertinent regarding these comparisons.

When comparing physical and behavioral traits it should be remembered that normal and abnormal categories are not combined in the physical area. As will be noted later, an attempt was made to separate abnormal from normal behavioral traits, but this was not feasible based upon data available. Accomodation for this in Table 16, for instance would lead to the frequency of 237 (115 + 122) physical terms as compared with 222 behavioral. Similarly there are 103 physical terms in Pediatrics (Table 18) to be compared with 83 in the Behavioral category.

The highest and lowest frequencies for each discipline should be noted in these data. One questions whether the specialist presents these emphases by design or by chance. It would also be of interest to determine which groups he believes to be the most important and whether the list of terms

TABLE 14

Number of Original & Modified Terms Used in Each Descriptive Category by Discipline

Category	Neurology Orig-Mod	Pediatrics Orig-Mod	Ophthalmology Orig-Mod	Audiology Orig-Mod	Psychology Orig-Mod	Social Work Orig-Mod	Totals Orig-Mod
Gen. Info.	17-15	87-36	0-0	0-0	10-2	28-21	142-74
Etiol. Factors	41-36	20-14	11-10	1-1	0-0	16-13	89-74
Child Physical Normal	139-115	55-33	86-52	11-11	7-7	0-0	298-218
Child Physical Abnormal	132-122	144-70	76-46	13-11	0-0	9-7	374-256
Child Behavior	308-221	137-83	22-12	38-32	243-217	17-16	765-581
Diagn. Descrip. Procedures	39-39	4-4	10-6	8-8	46-44	0-0	107-101
Family Physical	40-31	215-129	0-0	0-0	0-0	7-6	262-166
Family Behavior	1-1	20-9	1-1	0-0	7-7	7-4	36-22
Previous Treat. Child	6-51	91-47	30-4	5-5	8-8	2-2	142-117
Previous Treat. Family	10-10	34-20	0-0	1-1	0-0	0-0	45-31
Totals	733-641	807-445	236-131	77-69	321-285	86-69	2260-1640

TABLE 15

Number of Terms Used in Each Descriptive Category by Discipline

Category	Neurology	Pediatrics	Ophthalmology	Audiology	Psychology	Social Work	Totals
General Information	15	36	0	0	2	21	74
Etiological Factors	36	14	10	1	0	13	74
Child trait Physical, Normal	115	33	52	11	7	0	218
Child trait Physical	122	70	46	11	0	7	256
Child trait Behavior	221	83	12	32	217	16	581
Diagnostic, Descriptive Procedures	39	4	6	8	44	0	101
Family traits Physical	31	129	0	0	0	6	166
Family traits Behavior	1	9	1	0	7	4	22
Previous Treatment Child	51	47	4	5	8	2	117
Previous Treatment Family	10	20	0	1	0	0	31
Total	641	445	131	69	285	69	1640

includes all those he believed to be useful and complete.

The comparison of generalist and specialist takes added meaning from this analysis. If one looks at the distribution of terms for each examination area, it appears that Ophthalmology, Audiology and Psychology neglect at least four of the ten categories while Neurology and Pediatrics each cover a more representative sampling. The Social Work effort seems to come somewhere between these two groups. The number of cases representing each of these specialists are different so the reviewer of these several tables should not attempt to combine them and relate the discipline represented solely on this basis.

There is, in these six tables a group of unanswered questions which could range from the specialist's training and perception of his part in the team process to a recognition of the fact that all examiners attent to only a few factors in the complex process of observing children and their families for the purpose of assessing potential and planning for future programming.

The number of terms divided into five general categories and further divided into sub-categories of the child's physical and behavioral traits was large enough so that further sub-categorization could be attempted. The frequency of terms in these categories ranged from thirty-one for treatment of parents to five hundred and eighty-one classed as behavior of the child. As noted in Figure 1, the physical traits are divided into normal and abnormal while no such subclassification was made for behavioral terms.

Subcategory headings are listed in Figure 1. These were developed as the lists of terms were inspected after they had been divided into the eight general categories for each specialist (Appendix C). As these data were examined, some divisions were obvious. Others could be designated as knowledge of the general category was applied to the terms. Some could also be seperated by the fact that certain subgroups seem to be important to the various examiners. The breakdown which developed and frequencies for each specialist are listed in Tables 23-31.

In these tables, one notes the relative use each specialist makes of terms in the various subcategories. It is at this level that the relative importance each specialist places on certain areas may be discerned. An example of this is clearly seen in Table 27 which lists frequency of behavioral terms. Neurology is particularly concerned with terms relating to motor behavior, is less concerned with examples of learning and relatively unconcerned with terms relating to socialization. The pediatrics follows a similar pattern. Psychology in contrast, shows particular concern for learning, has special interest in socialization and is not interested in motor development. While this does not actually indicate interest as a professional term, it does relate to the use each specialist makes of that subcategory in his reports and as such, it provides a way to examine further the general categories used by each specialist in the reporting procedure.

Further use of these tables may be made when the numbers of terms in each category are related to Figure 1. Inspection of the tables in this manner makes it possible to think of Figure 1 as a beginning model which encompasses virtually all terms used by a team in the evaluation process. While some categories are obviously gross in content, it is possible to develop a more precise description of those considered important and to the elimination of those which seem to be of no functional value. Further description of the subcategory headings is supplied here to aid in the examination of Tables 23 to 31.

The seventy-four items on general information listed in Table 23 deal with general descriptive terms relating to the child, his family and other persons. The subcategories of parent and other family relate to persons with a blood relationship to the child. Descriptive items are those relating to specific aspects of the child. The subcategory, non-family, consists of items contributed by persons such as foster parents, social workers and teachers.

The few terms devoted to this category makes one suspect that either the grouping is irrelevant or the spcialist involved does not consider these categories important data to be included in his report. It would seem that the latter possibility is the case, and that the specialists concerned quite possibly believe that this information exists in the face sheet and introductory information about the child. As such, it might be important to recognize that terms in this group are not supplied by specialists and that a general format should be developed which includes all important items in this sub-category.

All terms relating to etiological factors are listed in Table 24. These did not necessarily have a diagnosed causative relationship. Their placement in this group depended upon the fact that they did occur in the report and the terms are generally classed as being the cause of a handicapping condition.

The 74 terms in this group were divided into five subcategories: familial or hereditary factors are statements about the fact that note was made of some condition existing in the blood relationship to the child; traumatic conditions resulted from accidents after birth; those happening during the time of birth were separated to the birth defects column. congenital factors relate to conditions having to do with the mother or fetus during pregnancy; those listed as diseased make up the largest group but it should be remembered that these diseases are not diagnosed as being the cause of a condition --they are merely known to have caused defects in some cases. (The condition of retrolental fibroplasia occurs in this category even though some did not label it as a disease.)

In addition to the fact that only a few terms (74) occurred in this category, it is interesting to note that some specialists apparently did not consider these items as important to their reports. The psychologist and audiologist essentially were not concerned with causation. All other professions seem to have given the items a passing reference.

It would seem that etiological conditions should have had greater stress in the reports about a child. Some of these could be especially important for reasons of prognosis since many conditions are known to be progressive. This category would seem to be especially appropriate for the development of a checklist type of form for listing these data.

The items in Table 25 and 26 relate to physical traits. Presentation in two tables represents the fact that both normal and abnormal classifications were possible from these data. Physical traits, which obviously described an abnormal condition, were placed in the latter category. All traits describing the sensory modalities were placed in the sensory-communications column. The term 'communication' was believed appropriate here to identify the subcategory as a referent important to the communication process.

The traits in the general-physical category might also be listed as musculo-skeletal. General growth patterns, skin conditions and bone structure were placed in this list. Those traits describing other parts of the body were categorized as internal.

It seemed appropriate to separate those terms relating to the brain from other conditions of the central nervous system. These were listed as Cerebral and C.N.S. less Cerebral. The rationale for this is based on the fact that brain damage seems to be more frequently associated with learning defects than are defects in the rest of the central nervous system.

The largest category consisted of terms describing the child's behavior. These are listed in Table 27. As analysis continues, the subcategories will possibly be extended and divided even further. The subcategory communication will need to be separated for some purposes into terms relating to the receptive and expressive processes. For the present analysis, all items describing any aspect of communication are listed in this category.

Any description of an ability to socialize or attempt at socialization was placed in that subcategory. There was a need here to separate some items in this group from communication. A child talking could also be a child socializing. Distinctions of this nature were made on the basis of a child talking as communication while other items were generally classed as socialization.

Motor behavioral traits were generally easy to identify. Walking, buttoning and general motor development were classed in this subcategory. Self-help traits were those used in the Vineland Scales classification system. This may not be a useful separation as a subcategory in the future since there is overlap here with other subcategories and the classification itself is not behaviorally as discrete as the others. The subcategory learning relates to specific learned tasks, comments about mental retardation also are grouped in this area.

It was not possible to separate normal from abnormal behavior as it was for physical traits. A beginning is made however, in developing the possibility of a continuum behaviorally into some abnormal manifestations. This is presented in Table 27 as Aggression and Hyper-active or Self Stimulation. Aggressive behavior towards self or others is listed in the first subcategory. Terms relating to abnormally high activity levels and to techniques of self stimulation are classed in the second.

The fifth category represents a list of specific diagnostic tests. This list is not nearly as long as might be predicted which is testimony that few tests apply to this severely handicapped population. Table 28 separates these tests as those measuring social, physical and learning or communication. The social category could possibly be expanded to personal-social if there was sufficient development in these children to allow for the administration of personality or projective type tests. The neurologist and psychologist are the prime contributors to this table.

Table 29 lists all traits concerned with the child's family. These are divided into physical and behavioral. Further subcategorization was not felt necessary at this time since these traits are not usually directly related to the child. Tables 30 and 31 separate treatment previously given the child from statements about treatment given the rest of the family. The subcategory for therapeutic and medical care will need further subdivision since it includes all types of treatment both psychoeducational and medical. Because of the limited number of items in this category however, such subdivision was not made at this time. The other subcategories of surgical care, diagnostic, and medication are self-explanatory.

Summaries from Recommendations

All report summaries were reviewed for the 70 cases. The list of recommendations was then divided into the categories of Physical-Medical, Psycho-Educational, Placement and Family. A list of the specific recommendations in each category is Appendix D.

Table 33 shows the number of recommendations made per child in each category as well as the total number of recommendations per child and per category. The majority of recommendations were in the Psycho-Educational and Physical areas.

Table 32 indicates the number of recommendations made per child. Three hundred and twenty-eight recommendations were made for the 70 children, ranging in number from one to eleven per child. The majority of the children had from two to five recommendations. The fact that 137 of the 328 recommendations are concerned with Psycho-Educational factors is one indication that the major goal of the clinic to outline a treatment program is being served.

Conference Results

In order to plan future research based on the findings of this pilot investigation, a conference was called wherein the project directors and the representatives of four centers of testing, treatment, and teacher training met to isolate the parameters of an educationally critical sub-group within the deaf-blind population.

This conference was planned within the context of project 8-0474 (Appendix F) submitted to the U.S.O.E. to accomplish the first step of that project, viz., to be specific with reference to the questions raised in the following "conference charge."

Conference Charge

The participants in the conference were asked to consider the following problems:

1. What parameters of population such as age, sex, maturity, degree of disability, etc. would constitute a critical population for educational research?
2. In what situations (physical environs as well as type of people present and test objects available) should a child be video-taped in order to enhance inter-agency video-taped case reporting and evaluation procedures?
3. What means of experimental appraisal or quantification of the video-tapes ought to be employed?

The conference took place in a setting wherein constantly playing video-tapes were available in the background for selected viewing in order to prompt the members of the group to consider whether or not such a concept as video-tape interchange and video-tape analysis of children is practical, meaningful, and desirable. There seemed to be no doubt that this was a worthwhile undertaking and that the criteria for (1) situations, (2) test objects, (3) examining individuals and (4) test environments ought to be better isolated.

This group, all of whom are regularly engaged in settings for the deaf-blind or where the severely multiply-handicapped are in clinical attendance, consisted of:

Participants

The conference participants were:

1. Carl Davis, Psychologist, Perkins School for the Blind, Boston.
2. James Palasek, Assistant Professor and Speech Pathologist, The Horace Rackham School, Ypsilanti, Michigan.
3. William Meyers, Assistant Professor Multi-Handicapped Program, University of Texas, Austin.
4. Partial participation in the conference was asked of members of the Syracuse Deaf-Blind Evaluation Team.
5. Robert Jones, Syracuse University, Audio-Visual consultant to advise on feasibility of suggestions.
6. Mary Snell, Supervising teacher, Deaf-Blind department, Alabama School for Deaf and Blind.

Population Suggested

The following criteria were determined by the previously identified group of experienced personnel in the field of evaluation and education of the deaf-blind child to be suitable criteria by which we might delimit a relatively homogeneous sub-group within the deaf-blind population for meaningful research in the future:

1. Since the initiation of the current research has grown out of an evaluation center's testing of children for the purpose of educational placement especially in those instances when children have proven to be difficult to evaluate or program for, then this general factor of a suspected auditory and visual problem becomes the initial criteria. The profound nature of the child's over-all problem as specified below makes it clear why the loss or distortion of vision and hearing cannot be more precisely specified.

2. The children should be those being considered for admission to an educational program for the deaf-blind child. Such programs generally following for their most elementary criteria the Waterhouse definition: "Any child whose visual loss or hearing loss is so great that he cannot succeed in classes designed for his primary problem alone."

3. The ordinary criteria of either chronological or mental age is quite inappropriate by mutual agreement of the conference participants as a means of delimiting the population for study. For this reason, through discussion, a consensus for what might be called the age or maturity level of the child to be included in the study was specified as follows:
   a. Chronological age--no greater than eight years.
   b. Evidence of minimal development in terms of self-help skills no less than those characteristics which follow:
      1. Evidence that toilet training has been initiated with some success,
      2. Evidence that solid food is tolerated and eaten by the child,
      3. Evidence that the child is ambulatory,
      4. Evidence of an attempt to assist in the process of dressing himself other than passive or flaccid non-responsiveness,
      5. Evidence of interaction with people and the environment.

It was suggested by the conference participants that twenty clients with these characteristics be used as the population of the study.

Situations Suggested

The following situations for video-tape observation of the child were selected:

1. A visual inspection of the child with the close-up lens of the camera showing those characteristics to which one might wish to point special attention or which might not be observable on long range shots. For example, a close-up of the eyes to show

possible nystagmus; a close-up of distortions of muscular or bone postures; a close-up of an apparently flaccid or hypertense muscle or reflex pattern; close-ups of the oral structure when such are obviously malformed, etc.

2. Interaction of the child with the mother in two situations. One, where the mother is feeding the child, another where the mother is "showing off" the child's best learning.
3. A duplication of situation two using an unfamiliar tester rather than the mother for the same tasks.
4. Observation of the child in a peer situation where some directed activity and some non-directed activity can be observed.
5. A learning situation based on the child's most likely potential for successful participation. The level of learning might vary from some relatively high degree of motor performance as in game playing or even rarely formal learning down to some conditioned response level of learning.
6. Free play situation with a wide variety of objects being made available to the child.
7. Observation of the child with both an authoritarian and a permissive individual.
8. A situation in which the child responds out of boredom, being isolated from as much visual, auditory and tactile stimulation as possible.
9. A brief interview with the parent.
10. Observation of the child in a casual, home-like environment.
11. Observation of the child with auditory and visual aids, such as glasses and auditory trainers when they are or may be part of his equipment.

It was agreed by the participating consultants that in the course of an hour one might show a child briefly engaged in the variety of above activities to provide for an enormous enhancement of the referral process and the communicative process between agencies.

It was believed that to see the child performing in these situations and to hear him performing in these situations on video-tape would allow for considerably greater interaction between facilities by reducing the preparation time with respect to a child in anticipation of his going from one center to another, by increasing the opportunity for staff members to demonstrate a particular characteristic of the child that they want to convey in ways which words would not permit to other personnel working with the child; by allowing the non-verbal aspects of communication - a feeling for the child and the feelings of the child - which cannot be written down to be transmitted between agencies to a much better degree.

Test Materials Suggested

The following objects were suggested by the consulting group as those they would like to see children interacting with in the filmed sequence. The objects are: a doll, a rubber ball, a flashlight, a play swimming pool, a sandbox, something sticky, something that vibrates, something of varied textures, something that is reflecting, noise makers, wind-up toys, books, a sliding board, blocks, stairs, a rocking horse, a trampoline, barrels, etc.

Rating Protocols

The conference participants agreed on some general procedural points for the use of video protocols - either experimentally or clinically.

(a) No time limit should be imposed or number of viewings restricted for the judges at this point in the development of the technique. But the time used for each film rating should be recorded.

(b) A comparison of normal and handicapped populations is not critical at this phase of the research. The direct analysis of only severely multi-handicapped deaf-blind children is sufficient.

It was suggested that two rating schedules be applied to each film by each judge; the first rating to be concerned with the film and situations, that is, the technique; the second rating to be concerned with the child and the evaluation of his communicative behavior.

Figure II shows the evaluation form suggested by the conference participants which would, along with a commentary sheet, provide data for the evaluation of the technical but not the evaluative aspects of the videotape technique.

Figure III shows the Behavioral Protocal format, giving only a partial list of the terms to be available to the consultant-judges at the time of film viewing. The categories of visual-motor, auditory-vocal and tactile with sub-categories in each for receptive and expressive will be as shown, but the total list of terms under each for check listing will be expanded from the lists of appendices B, C and D of the planning grant and the manuscripts of Curtis and Robbins as indicated in the original application. Thus, those professional terms from among the over 8000 located in the pilot study, which relate to communication, will be grouped under the headings shown in Figure III and rated by the judge as present or absent in each of the eleven situations video-taped for each of the twanty children.

The results will be reported as specified in the original procedure.

Figure II

Sample of Rating Form for Video-Tape Technique

1. To what extent is this situation useful to the examiner observing communicative behavior?
   poor excellent
   1 2 3 4 5

2. To what extent is this film useful in observing other than com-communicative behavior important to the over-all evaluation of the child?
   poor excellent
   1 2 3 4 5

3. What suggestions do you have for altering the situations for greater usefulness?

4. Would a film such as this be a useful part of a child's permanent record?
   poor excellent
   1 2 3 4 5

5. Is this particular tape a useful teaching aid?
   poor excellent
   1 2 3 4 5

6. To what extent was the child shown appropriate for the experiment?
   poor excellent
   1 2 3 4 5

7. To what extent were the testing materials appropriate?
   poor excellent
   1 2 3 4 5

8. To what extent were the settings appropriate?
   poor excellent
   1 2 3 4 5

9. To what extent was the technical quality of the video-tape satisfactory?
   poor excellent
   1 2 3 4 5

10. What aspects of this film should be particularly reviewed at the post conference?

Figure III

Communicative Evaluation Protocol

This figure outlines a partial listing of terms taken from professional reports and articles describing communicative behavior of deaf-blind, severely multi-handicapped children. The final protocol will contain extensive listings from Appendices B, C and D of the planning grant. The consultant judge will rate for occurrence or absence of the behavior in each of the eleven situations for each of the twenty children.

I. Visual-Motor
  A. Receptive
    1. reacts to change in room lights
    2. inspects shiny objects
    3. grasps object accurately at two feet
    4. etc.
  B. Expressive
    1. marks on paper with crayon
    2. places objects in container accurately
    3. prints letters
    4. etc.
II. Auditory-Vocal
  A. Receptive
    1. responds to mother's voice at conversational level
    2. localizes warblet
    3. startles at door slam
    4. follows spoken directions
    5. etc.
  B. Expressive
    1. cries with sound
    2. echolalic
    3. says "no"
    4. uses two or more differentiable vowels
    5. etc.
III. Tactile-Kinesthetic
  A. Receptive
    1. recognizes mother by touch
    2. reacts to textures
    3. reacts to unfamiliar person's touch
    4. reacts to being held
    5. etc.
  B. Expressive
    1. pushes objects
    2. searches for objects by feeling
    3. stimulates self by touch
    4. etc.

Related Comments:

I. List below no more than 10 terms or phrases describing psycho-educational characteristics of the child.
II. List below no more than 10 social-environmental characteristics of the child.
III. List below no more than 10 physical-medical characteristics of the child.

TABLE 16

Percentages for Terms Used in each Descriptive Category by Discipline

Category	Neurology	Pediatrics	Ophthalmology	Audiology	Psychology	Social Work	Totals
General Information	2	8	0	0	.7	30	4.5
Etiological Factors	6	3	7.5	1	0	19	4
Child Trait Physical Normal	18	7	39	16	2	0	13
Child Trait Physical Abnormal	19	16	35	16	0	10	15.5
Child Trait Behavior	34	18	9	46	77	23	35
Diagnostic, Descriptive Procedures	6	.9	4.5	11.5	15	0	6
Family Traits Physical	5	29	0	0	0	9	10
Family Traits Behavior	.2	2	.8	0	2	6	1
Previous Treatment Child	8	10.5	4	7	3	3	7
Previous Treatment Adult	1.5	4	0	1	0	0	2
Totals	99.7	98.4	99.8	98.5	99.2	100	98

TABLE 17

Original & Modified Frequency Count for Terms Utilized within Professions: Neurology

Category	Original Total	Modified Total
General Information	17	15
Etiological Factors.	41	36
Child Trait - Physical Normal	139	115
Child Trait - Physical Abnormal	132	122
Child Trait - Behavior	308	221
Diagnostic Descriptive - Tests	39	39
Family Traits - Physical	40	31
Family Traits - Behavior	1	1
Previous Treatment - Family	6	51
Total	733	641

TABLE 18

Original & Modified Frequency Count for Terms Utilized within Professions: Pediatrics

Category	Original Total	Modified Total
General Information	87	36
Etiological Factors	20	14
Child Trait - Physical Normal	55	33
Child Trait - Physical Abnormal	144	70
Child Trait - Behavior	137	83
Diagnostic Descriptive - Tests	4	4
Family Traits Physical	215	129
Family Traits Behavior	20	9
Previous Treatment - Child	91	47
Previous Treatment - Family	34	20
Total	807	445

TABLE 19

Original & Modified Frequency Count for Terms Utilized within Professions: Ophthalmology

Category	Original Total	Modified Total
General Information	0	0
Etiological Factors	11	10
Child Trait - Physical Normal	86	52
Child Trait - Physical Abnormal	76	46
Child Trait Behavior	22	12
Diagnostic Descriptive - Tests	10	6
Family Traits Physical	0	0
Family Traits Behavior	1	1
Previous Treatment - Child	30	4
Previous Treatment - Family	0	0
Total	236	131

Table 20

Original and Modified Frequency Count for Terms Utilized within Professions: Audiology

Category	Original Total	Modified Total
General Information	0	0
Etiological Factors	I	I
Child Trait Physical Normal	11	11
Child Trait Physical Abnormal	13	11
Child Trait Behavior Normal	38	32
Diagnostic Descriptive- Tests	8	8
Family Traits Physical	0	0
Family Traits Behavior	0	0
Previous Treatment- Child	5	5
Previous Treatment - Family	1	1
Total	77	69

Table 21

Original and Modified Frequency Count for Terms Utilized within Professions: Psychology

Category	Original Total	Modified Total
General Information	10	2
Etiological Factors	0	0
Child Trait Physical Normal	7	7
Child Trait Physical Abnormal	0	0
Child Trait Behavior Normal	243	217
Diagnostic Descriptive - Tests	46	44
Family Traits Physical	0	0
Family Traits Behavior	7	7
Previous Treatment - Child	8	8
Previous Treatment Family	0	0
Total	321	285

TABLE 22

Original & Modified Frequency Count for Terms Utilized within Professions: Social Work

CATEGORY	ORIGINAL TOTAL	MODIFIED TOTAL
General Information	28	21
Etiological Factors	16	13
Child Trait Physical Normal	0	0
Child Trait Physical Abnormal	9	7
Child Trait Behavior Normal	17	16
Diagnostic Descriptive - Tests	0	0
Family Traits Physical	7	6
Family Traits Behavior	7	4
Previous Treatment - Child	2	2
Previous Treatment - Family	0	0
Total	86	69

TABLE 23

Frequency of Terms for General Information about the Child, his Family and Others at Time of Evaluation

	Totals	Other Family Sib - Grandparents	Parents	Non-family	Child Description
Neurological	15	7	0	1	7
Pediatrics	36	8	15	1	12
Ophthalmology	0	0	0	0	0
Audiology	0	0	0	0	0
Psychology	2	0	0	1	1
Social Work	21	4	14	0	3
Total	74	19	29	3	23

TABLE 24

Frequency of Terms about Etiological Factors Contributing to the Child's Disability

	Totals	Family Heredity	Traumatic	Birth Defect	Congenital Pre-Natal	Disease
Neurological	36	2	5	1	5	23
Pediatrics	14	0	0	0	3	11
Ophthalmology	10	0	0	0	3	7
Audiology	1	1	0	0	0	0
Psychology	0	0	0	0	0	0
Social Work	13	2	0	6	1	4
Total	74	5	5	7	12	45

TABLE 25

Frequency of Terms Listing Normal Physical Traits of the Child

	Total	Sensory	General Physical	Cerebral	C.N.S. less Cerebral	Internal
Neurological	115	33	56	0	22	4
Pediatrics	33	3	26	2	0	2
Ophthalmology	52	52	0	0	0	0
Audiology	11	9	1	0	1	0
Psychology	7	2	4	0	1	0
Social Work	0	0	0	0	0	0
TOTAL	218	99	87	2	24	6

TABLE 26

Frequency of Terms Listing Abnormal Physical Traits of the Child

	Totals	Sensory	General Physical	Cerebral	C.N.S. less Cerebral	Internal
Neurological	122	39	36	23	12	12
Pediatrics	70	16	8	10	1	35
Ophthalmology	46	46	0	0	0	0
Audiology	111	9	0	1	0	1
Psychology	0	0	0	0	0	0
Social Work	7	3	1	1	0	2
TOTAL	256	113	45	35	13	50

TABLE 27

Frequency of terms Listing Abnormal Behavior Traits of the Child

	Total	Communication	Social	Motor	Learning	Self-Help	Agression	Hyperactive Self-Stimulation
Neurological	221	56	17	73	42	13	10	10
Pediatrics	83	23	1	26	17	10	5	1
Ophthalmology	12	1	0	6	2	0	2	1
Audiology	32	19	0	1	12	0	0	0
Psychology	217	33	48	18	99	6	8	5
Social Work	16	3	1	1	6	3	1	1
Total	581	135	67	125	178	32	26	18

TABLE 28

Frequency of Terms Including Diagnostic Tests Given the Child

	Total	Social	Physical	Learning & Communication
Neurological	39	0	39	0
Pediatrics	4	0	4	0
Ophthalmology	6	0	6	0
Audiology	8	0	6	2
Psychology	44	2	0	42
Social Work	0	0	0	0
TOTAL	101	2	55	44

TABLE 29

Frequency of Terms Concerned with Physical and Behavioral Traits of the Family.

	Physical	Behavior
Neurology	31	1
Pediatrics	129	9
Ophthalmology	0	1
Audiology	0	0
Psychology	0	7
Social Work	6	4
Total	166	22

2

TABLE 30

Frequency of Terms Concerned with Previous Treatment of the Child

	Total	Surgical Care	Therapeutic and Medical Care	Diagnostic	Medication
Neurology	51	9	19	10	13
Pediatrics	47	8	25	1	13.
Ophthalmology	4	2	2	0	0
Audiology	5	4	1	0	0
Psychology	8	0	8	0	0
Social Work	2	0	2	0	0
TOTAL	117	23	57	11	26

TABLE 31

Frequency of Terms Noted for Previous Treatment of Parent and Family

	Totals	Surgical Care	Therapeutic & Med. Care	Diagnostic	Medication
Neurology	10	2	3	1	4
Pediatrics	20	10	2	3	5
Ophthalmology	0	0	0	0	0
Audiology	1	0	1	0	0
Psychology	0	0	0	0	0
Social Work	0	0	0	0	0
Totals	31	12	6	4	9

TABLE 32

Indication of number of Recommendations made per Child

NUMBER OF RECOMMENDATIONS	FREQUENCY
1	1
2	11
3	10
4	14
5	16
6	4
7	6
8	2
9	4
10	1
11	1
Total	328

TABLE 33

Number of Recommendations by General Area of Concern

Case#	Re-eval	Physical	Psycho Edc.	Placement	Family	Total
1		1	4	1	1	7
2		1	2	2		5
3			3	1		4
4		2	3			5
5		1	2	1	1	5
6	Yes			2		2
7		1	4	1	1	7
8		4				4
9	Yes	1	4			5
10			5	1	1	7
11		1	3			4
12	Yes	1	3	1		5
13		2			1	3
14			5			5
15	Yes		3		1	4
16	Yes		2	1	1	4
17		2	5	1	1	9
18		1	1	1	4	7
19		2	1	1	2	6
20	Yes	1		1	1	3
21		1	1		1	3
22		4	2			6
23		1	1			2
24	Yes		1	1	1	3
25		3			1	4
26		1	1	1	2	5
27		1	1	1		3
28	Yes		1		1	2
29	Yes	4	2	1	1	8
30		1			1	2
31		2	2	1	2	7
32			2	1		3
33	Yes			1	1	2
34	Yes	5	3	1		9
35		1	2	1	1	5

(cont.)

Table 33 (Cont'd)

Case#	Re-eval	Physical	Psycho Edc.	Placement	Family	Total
36			2		2	4
37		1		1		2
38		1	2	2		5
39		2	3			5
40	Yes	2		1	1	4
41		7	4			11
42	Yes	6	2		1	9
43		2	1	1		4
44			2			2
45	Yes	3	1			4
46			9			9
47		3	4		1	8
48			7			7
49		2	2			4
50		1	1	3		5
51		1	3		1	5
52		3	1		1	5
53				1	1	2
54		1		1		2
55				1		1
56				2		2
57	Yes	1		1		2
58	Yes		3	1	1	5
59			2		2	4
60				2	1	3
61		1	1	2	1	5
62		2	1	1	2	6
63	Yes		2		1	3
64			1	1	2	4
65		2	7		1	10
66	Yes	1	1		1	3
67	Yes	2	3	1		6
68		2		1		3
69		1	2	1		4
70	Yes	2	1	1	1	5
Total	20	94	137	49	48	328

DISCUSSION

Results directly related to the data suggest the following needs:

1. The preparation of a glossary of terms which have firm definitions within and between professions.
2. The development of a catalogue of terms not clearly defined verbally or operationally within and/or between professions and the attempt to develop a clarity for such terms.
3. The further cataloging and discussion of redundant and similar terms.
4. The development of scaling to enhance the breadth of usefulness of a given term or list of terms.
5. The preparation of arbitrary referents for certain problem terms either in manuscript or video-taped forms. The latter seems particularly suitable.
6. The preparation of "local" glossaries to accompany reports and communications between agencies for certain vague terms.
7. An attempt to reduce further the number of terms used to describe a client.
8. The consideration of a technique to show that certain key concepts are observed in the examination of the child and the clustering of terms around these concepts in order to aid the study of the concept.
9. The use of the terminological classifications developed as a tool to aid in the study of the nature, focal interests and problems of given professional groups.
10. Inspection and re-grouping of terminological units to assist in the definition of the concept of deaf-blind and multiple disabilities and to specify in greater detail the characteristics of the population sub-groups.

Certain research recommendations are not so directly related to the data, but are made more obvious when viewed in light of the data. These are:

1. Improved resources for locating, registering and serving deaf-blind and all multi-handicapped children from early post-natal parent counseling to vocational or institutional placement.
2. The development of Centers to provide both services to the child and research on the problem.

3. Opportunities for information exchange and meetings of persons from many service and research professions serving the deaf-blind and severely multi-handicapped.

4. Short term training courses and personnel exchange programs to enrich communication between the relatively few service agencies.

5. Interaction between education, custodial and vocational workers to determine realistic goals based on experience and diagnostic procedures for deaf-blind children.

The two prime areas of concern generated by this planning research were:

1. The development of a video-taped protocol for improving evaluation and inter-agency communication processes and;

2. The development of a training program which attempts to prepare personnel for early childhood intervention and to apply the scientific bases of behavior modification to the problems of the deaf-blind and other severely multi-handicapped.

SUMMARY

The results of the preceding data may be summarized as follows: deaf-blind children were described by a group of professional examiners who are seeking to charecterize their problems and assets for the primary purpose of educational placement and coincidentally to improve their general life situation in other respects. The descriptions of the children were inspected for terminology used to describe the child and his life situation. The inspection of terms shows:

1. Six professional reports on each of 70 children provided a list of 2,828 terms.
2. After redundant terms were eliminated, only 1,646 terms remained.
3. Through inspection of the initial 20 case reports, it was determined that no single term occurred more than four times; this, from among 1,033 terms.
4. Inspection of these findings by a team of consultants regularly examining and educating the severely multi-handicapped child produced the result called "Conference report" which suggests a general plan for the use of a formalized video-tape protocol for communication between agencies about such children. The protocol is suggested, also, as a means of standardizing observation procedure.
5. Briefly, only a small portion of the reports on these severely handicapped children are based on standardized observation (formal tests). Even these must be discussed subjectively by the reporter. Semantic problems of case description, if added to the complexity of the terminology reported here, could theoretically, render the written case report impotent.
6. It is strongly suggested that the problem of meaningfulness of professional terminology be confronted both in client contact and in student training.

This planning project has initiated research and training proposals based on the above findings.

APPENDIX A

AMERICAN FOUNDATION FOR THE BLIND
15 West 16th Street, New York, N. Y. 10011

To: All Concerned

From: Elizabeth M. Wagner, Specialist, Services for Deaf-Blind Children, American Foundation for the Blind

Subject: STATISTICAL REPORTS, 1965-66

The following items are submitted for your information:

1. American Foundation for the Blind Register of Children with Impaired Vision and Hearing 1965-66
2. Total Number of Children on Register and Educational Placement BY STATE 1965-66
3. Distribution by Year of Birth 1965-66
4. Evaluations Sponsored by the American Foundation for the Blind at the Center for Development of Blind Children at Syracuse University 1965-66
5. American Foundation for the Blind Form: Information for Register of Children with Impaired Vision and Hearing (under 20 years of age).

If you have questions concerning this material, or if you would like further information about the services for deaf-blind children provided by the American Foundation for the Blind, we should be glad to hear from you.

We urge you to report to us all babies and children in your state with combined vision and hearing impairments. Additional copies of item 5. above available on request.

EMW:bs

att.

AMERICAN FOUNDATION FOR THE BLIND
15 West 16th Street, New York, N. Y. 10011

Register of Children With Impaired Vision and Hearing (Under 20 years of age)

July 1, 1965	Total number of children on register	417
July 1, 1965 to June 30, 1966	Number of children added to register	61
June 30, 1966	Number of children over 20 years removed from register	20
	Number of children removed from register not deaf-blind	1
July 1, 1966	Total number of children on register	457

Academic Year 1965-66 Educational Placement

In Deaf-Blind Programs (plus 4 over 20 years)	91
In Other Educational Programs	70
At Home	240
In Institutions for Mentally Retarded	56

Total number of children and educational placement by state - See Table I

Distribution by year of birth - See Table II

Distribution by sex - Males - 234
Females - 221
Unknown - 2

AMERICAN FOUNDATION FOR THE BLIND
REGISTER OF CHILDREN WITH IMPAIRED VISION AND HEARING
TOTAL NUMBER OF CHILDREN AND EDUCATIONAL PLACEMENT BY STATE
ACADEMIC YEAR 1965-66

Table I

State	D/B Program	Other Ed. Prog.	At Home	Inst. for MR	Total
Ala.	3	--	6	--	9
Alaska	--	--	--	--	0
Ariz.	--	--	5	--	5
Ark.	1	1	2	--	4
Cal.	9+1*	3	17	3	32+1*
Colo.	4	1	5	--	10
Conn.	1	2	4	--	7
Del.	--	--	--	--	0
D.C.	--	2	1	2	5
Fla.	1	2	8	2	13
Ga.	2	2	3	--	7
Hawaii	--	--	1	--	1
Idaho	--	1	2	--	3
Ill.	4	--	19	10	33
Ind.	2	1	1	2	6
Iowa	1	1	7	2	11
Kans.	5	3	5	--	13
Ky.	1	--	4	2	7
La.	4	7	7	--	18
Me.	1	--	2	--	3
Md.	1	1	2	--	4

Table I continued

State	D/B Program	Other Ed. Prog.	At Home	Inst. for MR	Total
Mass.	3+1*	3	7	2	15+1*
Mich.	5	2	4	3	14
Minn.	1	--	4	--	5
Miss.	2	--	--	--	2
Mo.	2	1	6	--	9
Mont.	--	--	--	--	0
Neb.	--	--	3	--	3
Nev.	--	--	--	--	0
N.H.	--	--	1	--	1
N.J.	2	7	12	2	23
N.Mex.	1	--	1	1	3
N.Y.	8+1*	13	23	17	61+1*
N.C.	1	2	7	--	10
N. Dak.	2	--	--	1	3
Ohio	2	1	14	--	17
Okla.	1	2	5	--	8
Ore.	1	--	--	--	1
Pa.	5	5	17	1	28
R.I.	--	--	--	--	0
S.C.	--	--	2	--	2
S. Dak.	--	1	4	--	5
Tenn.	--	--	3	1	4
Texas	9	3	6	3	21
Utah	1	--	4	--	5
Vt.	--	--	--	--	0

Table I continued

State	D/B Program	Other Ed. Prog.	At Home	Inst. for MR	Total
Va.	1	2	9	1	13
Wash.	3+1*	1	3	--	7+1*
W. Va.	--	--	1	--	1
Wisc.	--	--	3	--	3
Wyo.	1	--	--	1	2

* 20 years of age and over.

AMERICAN FOUNDATION FOR THE BLIND

Register of Children with Impaired Vision and Hearing
Distribution by Year of Birth
1964-65-----------1965-66

Table II

Year of Birth	Number of Children 1964-65	Number of Children 1965-66
1966	--	0 (first six months)
1965	0 (first six months)	5
1964	3	12
1963	3	6
1962	3	5
1961	7	11
1960	10	19
1959	30	38
1958	27	32
1957	18	23
1956	16	18
1955	24	25
1954	21	22
1953	40	41
1952	52	52
1951	31	33
1950	20	21
1949	27	27
1948	22	22
1947	19	19
1946	31	*19 (last six months)

Table II continued

Year of Birth	Number of Children 1964-65	Number of Children 1965-66
1945	**8 (last six months)	--
Unknown	5	7
Total	417	457

*Twenty children removed from register reaching 20 years of age between July 1, 1965 and June 30, 1966.

**Twenty-seven children removed from register reaching 20 years of age between July 1, 1964 and June 30, 1965.

AMERICAN FOUNDATION FOR THE BLIND
15 West 16th Street, New York, N. Y. 10011

The American Foundation for the Blind sponsors a comprehensive diagnostic evaluation service for children with a combined vision and hearing impairment at the Center for the Development of Blind Children, Syracuse University, Syracuse, New York. Recommendations for developmental and educational programs are provided. Screening is done by the Foundation, which accepts applications for evaluation from physicians, schools and casework agencies. For further information, apply to the American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

Total Number of Children Evaluated at Syracuse 1965-66 - 8

State of Residence of the Children Evaluated

Illinois	1
Kentucky	2
Louisiana	1
New York	1
Ohio	1
Pennsylvania	1
Washington	1

Year of Birth:

1952 - 1
1956 - 3
1959 - 2
1960 - 1
1961 - 1

Sex:

Males - 4
Females - 4

Educational Placement Recommended:

In Deaf-Blind Programs	1
In Other Educational or Treatment Programs	6
In Institutions for the Mentally Retarded	1

APPENDIX B
TERMS USED IN INITIAL ANALYSIS

PSYCHOMETRIC EFFORTS

Psychology

Visual and Social Maturity
Abstract-verbal
Merrill Palmer Scale
Michigan Pictures
Wallen Peg Board
Finger dexterity
General facility
Pink Tower
16 Cubes
Maxfield-Bucholz Scale
C.A.
Social Age
Social Quotient
Knox Cube tapping test
Grace Arthur Performance
Maze tracing
Copies E's models
Square
Diamond
Rotter Incomplete Sent. Blank
Formal tests
Pegboard
Systematic approach
Understood task
Completes task
Block tower
Repetitive block play
Could elicit response
T.A.T. - selected cards
Verbal T.A.T.
Bender-Gestalt-visual motor
Sequin form board
Systematic approach
Understood task
WAIS - adult
Similarities
Highest sub-test
Poorest sub-test
WISC-performance
Standardized procedures
Information subtest
Verbal

FORMAL TESTS

Audiology

Speech reception thresholds
Speech Resp. thresholds c̄
Audiometry EEG
4000 cycles
Pure tone air conduction
500'
4000
Bone conduction
1000
Discrimination _
Discrimination c̄ aid
1000 cycles
SRT
250
1000
6000
250
2000
Speech Range response
Lombard effect
2000 cycles
Electrodemal response aud.
2000
8000
500
4000

PHYSICAL STATUS AND HEALTH

Neurology

Weight
Ear aches
Headaches
Vertigo
Lower extremities
Hip joint - hyper extensible
Ankle, joint-hyper extensible
Cleft palate
Quadraceps muscle
Height-Weight norms Comparison
Reflex activity, Gen.
Whooping cough
hip flexion
Dorsifexion right ankle
Chorioretinities
C.P.
Bilateral afacial
Cataracts
Ocular diseases
Measles
Symmetrical
Upper extremities
ham string function
Chicken pox
Stretch at knees
Knee jerk
Heart
Glutei flexor

PHYSICAL STATUS AND HEALTH

Neurology (cont)

Hearing
Athetotic movement
Deep tendon reflexes
Ventriculogram
Brachioradial
Arrhinencephalic
Gag reflex
Abdominal skin reflexes
Tongue, atrophy
Maculae
Athetoid
Pupils react to light
Vibratory sensation
Pin prick
Ecchymosis, about eyes
Cerebellar tremor
Reading distance
Finger dexterity
Lateral movements of globe
Corneal reflexes
EEG Previous observations
Head circumference
Corneal shapes
Corneal-clearness
Size of ocular globes
Facial weakness
Optic disc identified
Foveal region
Light perception only
Incontinent, B.M. & Bladder
Sees small object (pill)
Spasticity, loser extremities
Cock-up foot
Tuning fork
Sternocleidomastoid muscles
Discriminatory
Sensory, general
Flat feet
Cortical sensory
Syncope
Pneumoencephalogram
Scissoring
Motor deficit
Skull, palpation
Two point discrimination
Leiter International Performance I.Q.
Achilles tendon, contracture
Stretch reflexes, quick
Hernia
Trapezius
Head-prenatal history
Finical jerk, radius
Anoxia
Apnea
Quadraceps jerk R&L
Ankle jerk R&L
Excessive tearing
Plantar responses
Convergence seen
Conjugate lateral gaze
Dysmetria
Print size
Finger strength
Eye preference
Choreic movements, face
Choreic movements, extremities
Functional acuity-bumps things
Cranial nerves
Facial jerk
Red reflex
Snout reflex
Pigment identified
General C.N.S.
Facial movements
Cerebral damage
Gross sounds
Spasticity, upper
Watch Tick
Musculature, size
Tactile finger discrimination
Smells foods, tobacco
Rectus muscle, weakness
Tremor
Spinal column
Dentation
Repetitive Photic
Cranial nerves, lower
Skull, X-rays
Spastic diplegia
Range of neck motion
cyanosis
grasp reflex
Mental
Visual
Biceps, right & left
Trauma-fall
Triceps, R&L
Right hemi-paresis t therapy
Elbow entensors
Adductors, flexors
Media
Clonus
Range of extra ocular movements
Romberg
Visual fields
Balance
Near vision
Outstretch posture-hands
Corneal size
Nystagmus
Fontanels
Boruit
Microphthalmia
Funduscropic exam
Jaw jerk
Vessels identified
Optic atrophy
Facial sensation
Cerebellar disfunction
Pupil deformity (keyhole)
Ear preference
Muscular strength
Finger to nose
Prominent joints
Hyperreflexia, legs
Latus testing
Seizures
Neural axis
Paralysis
EEG
Serologic studies
Arm swing
Palpebral fissures, small
Hayes-Binet
Unknown test
Spastic paraplegia

PHYSICAL STATUS AND HEALTH

Pediatrics

Loss of sight
Otitis media
Tonsilitis
Seizures
Measles
cyanosis
Convulsions
Patent ductus arteriosis
Cataracts
Sinus trouble
Anemic
Lack of proteins
Meningitis
Gen. vigor
Streptoccoccus meningistic
Boils
Pneumonia
Light reflex
Injection left drums
Height
Very small
Weight
Mouth & pharynx
General appearance
Allergic to adhesive tape
Missing
Size
Pharynx
Post nasal drip
Scalp
Good
Right
Lymph nodes
Landmarks present
Not palpable in canal
Ribs
Flat feet
Size
Muscle power
Rhythm
Deformities
Sounds
Equal
Lungs-clear (ausculation & percuss.)
Typical congenital heart
Reflexes
Viscerae
Genitalia
Hearing
Nourished
Alert
Deaf

usual childhood
Cerebral palsy
Hearing loss
High temp.
German measles
Encephalitis
Heart Murmur
Chicken pox
Ear trouble
Cleft palate
Blind
Edema of brain
Injury
Serous
Skin & M.M.
Respiratory infections
Cardio-Resp. Dyspnea
Genito-urinary
C.N.S. headache
Canals clear
Nose
Discharge
C.A./$\bar{x}$ est.(yrs)
Oral hygiene
Carious
Head (sm.)
Size
Fontanels closed
Hair
Movement
Fears
Size
Canals clear
Small
Out of proportion
Adequate
Shape
Arms, short
Systolic
Rt. arm
Force
Reflexes-active
Slight systolic
Babinski-neg
Retarded growth*dev
Slight distention
Masses palpable
Good physical condition
No evidence of heart trouble
Hearing Loss
Cerebral palsy

Progressive hearing loss
Anemia
No eyes
German measles
Congenital defects
Bronchitis
Whooping cough
Blind
Roseola
Seizures
Dentition
Colds
Exercise tolerance
Cracked collar bone
Warts
Gastro-intestinal anorexia
Skel. system
Light reflex
Nose
Percentile
Teeth
Skin
Color & texture
Strophied
Shape
Occipital flattening
Neck-supple
Eyes
Thyroid-palpable
Drums
Cervical glands
Chest-size
Muscle tone
Heart
Joints
Murmur
Lower rt. limb
Rate
Joints
Grade III systolic
Slow
Abdomen
Tone
Small head
Good medical supervision
About x
Testes not in scrotum
Excellent physical cond.

PHYSICAL STATUS AND HEALTH

Ophthalmology

No vision
Size
Pale
Anterior chamber
Peri-macular
Cloudy
Retina
Vessels
Vision limited to large objects
Central vision, distant uncorrected
Central vision c̄ correction, distant
Nystagmus
Pupil Opaque
Ocular
Iris
Course
Examination c̄
Esotropic
No visible pathology
Total bl.-in future
Iritis
Phthisis bulbi
Hyperopia
Fundi
Macular area
Lens
Cataractous changes
Microphthalmic
Atrophied
Cyst
Macular
Vitreous
Light perception, limited to
Fix on light
Pupillary opening
Pupillary area, white tissue
Central vision c̄ correction, near
Pupil reacts to light
Pupil fixed
Horizontal
Diameter
Intermittent
Opacity nasally
Coloboma
Limited temporally
Intraocular pressure
Elevated to finger pressure
Astigmatism, compound hyperapic
Red Reflex
Optic nerve lesions
Small opacity
Cataracts, congenital
Optic disk
Atrophy
Media
Debris
Large objects, close
Fix on small objects
Light projection
Pigment changes
Central vision,c̄ correction
Pupillary tension
Pupil
Iris
Central vision, estimated, max.
Pupil Pinpoint
Pendular
Opaque
Roving
Pupils dilated
Strabismus, divergent, alternating
Soft
Band keratitis
Optic atrophy
Staphloma
Pigmentary changes
Retina lesions
Cataract membrane

NON-PSYCHOMETRIC DESCRIPTION

Psychology

Attractive
Reflex behavior
Negative self concept
Uncommunicative
Hums
Motivation
Laugh
Feels angry
Negativistic
Rocks
Feels incompetent c̄ brags
Smells toys
Self help skills
Withdraw to fantasy
Dresses
Appears well adjusted
Chores-self help
Immature
Physical structuring of tasks
Mature
Shouts
Self-critical
Right hand preference
Nods head
Brain damage, possible
Feels incompetent c̄ girls
Denies handicap
Fear of being hurt
Feeds self
Fear of rejection
Uses spoon
Emotionally disturbed
Locomotion
Unresponsive
Insecure
Screams
Interest
Est. functional I.Q.
Play observations
Co-operative
Purposive behavior
Eats toys
Watches T.V.
Toilet trained
Fear of failure
Bathing
Alone too much

NON-PSYCHOMETRIC DESCRIPTION

Psychology (cont)

Holds cup
Sat
Orientation
Walks c̄ help
Well-defended
Chews solids
Performance tasks, I.Q. est.
Plays c̄ other children
Displays sensitivity to others
Communicates e gestures
Explores
Has adult contacts extra family
Prehensory
Passive
Warmth
Adequate stimulation in E
Walks alone
Distortions
Reversals
Attentive to noises
Attention span
Difficult to evaluate I.Q.
Most like age (bl.ch.)
Perceptual discrimination
Controls E
Responds to commands
Uses smell in identification
Babbling, single syllables
Creative thinking
Verbal abilities, age est.
Collision
Identified real objects

Withdraws
Walk, age starting
Walks
Timid
Grasps objects
Conflictive; self concept
Gross motor play
Personality
Follows directions
Solitary play
Affectionate
Informant-ex-wife
Speech
Prehensory
Dependent on routines
Gross motor
Interest in rapport c̄ E
Seeks E's attention
Problem in neurological perception
Adaptive behavior
Curious re: environment
Attention span
hums & gestures
Names Simple objects
Rote learning
Gestures, pulls, etc.
Limited generalization
Lacks capacity
Language of age
Concrete conceptualizing
Self help, age of
Stereotyped language
Tactile
Identifies represent. models

On bottle
Dresses c̄ help
Mobility patterns
Stands alone
Vocational aspirations, realistic
Weaned from bottle
Social development,est.
Initiative
Attacks E physically
Hyperactive
Now in residential school
Anxious
Anxious about bowels
Locomotion
Charm
Independent approach to tasks
Stairs
Sits alone
No response to environment
Likes being alone
Simple problems, add & sub
Communication
Limited reasoning
Rebels
Understood commands
Banal
Whines imitation s
Understands questions
Show creative thinking
Perserverations
Not use effectively

OBSERVATION

Audiology

Informal tests
Estimate, residual hearing
Non-fluency
Canals clear
Fluid
c̄ background noise
Auditory memory span
White noise
Startle responses, extreme intensities

Not possible to test well
Estimate loss
Suspected non-fluency
Tympanic membranes O.K.
Adenoid mass
At 30-40 db
Aditory recall
Sound effects
Bells whistle

Some hearing suspected
Echolalic
Ears-normal
Landmarks good
Localization
At 100 db
Music
Eye blind, extreme intensities

OBSERVATION

Audiology (cont)

- Whisper
- c amplification unit
- Discrimination
- Myringotomy
- Conditioning, kinesthetic
- Adenoidectomy
- Otological consultation
- Conditioning, auditory stimuli
- Tonsilectomy'
- Serous otitis media

FAMILY RELATION AND FAMILY HEALTH

Neurology

- Sibs, # rank
- Health-Mother
- Age-mother
- Spotting
- X-rays, pelvic
- Fever
- Exanthena
- Previous Caesarian
- Blood transfusion, mother
- In parents
- In relatives
- Sibs. History
- Health-father
- Thyroid med., mother diseases
- RH, mother
- RH father
- Breech deliver
- Premature
- Emotional upset, mother
- In Sibs
- No preferences
- Rubella
- German measles
- Pregnancy
- X-rays, pelvic
- Rash
- RH, child
- Caesarian
- Weight
- Handedness
- In grandparents

FAMILY RELATIONS AND FAMILY HEALTH

Pediatrics

- 1st trimester
- One of twins
- Cystic uterus
- Problems
- Gestation
- Caesarian
- Infections
- M.R.
- Visual_handicaps
- Child x
- Toxemia
- At 1 mo. or less
- Gastric distress
- At 6 mo.
- Hard
- Duration
- Vertex delivery
- "Usual"
- Industry
- Age
- Health
- Pneumonia
- Gall bladder
- Nerve injury in arm (war)
- Frank
- Difficulty c̄ discipline
- Complications
- Hysterectomy
- Breech
- Gall Bladder
- Previous
- Bleeding
- Surgically aborted
- Sibling infections
- Vomiting
- Respiratory
- Miscarriages
- Anemix
- At 4 mo.
- Labor, active
- Respiratory
- Died age
- Short anesthesia
- Business
- Analgesic
- Age
- Health
- Femoral hernia
- Hernia
- Fractured skull with plate
- Fathers not living
- Complications
- Other still born
- Heavy irregular periods
- Other pregnancies
- Complications
- Prolonged labor
- Emotionally upset
- Pregnancy
- Hard of Hearing
- P.G. now
- Vomiting
- At 3 mo.
- Infection, chronic
- Died shortly after birth
- Long intermittent
- Profession
- Drugs
- Civil Service
- Education
- Hysterectomy
- Kidney infection
- Stay in mental hospital
- Diphtheria
- Appendectomy
- Parents not know what to expect

FAMILY RELATIONS AND FAMILY HEALTH

Pediatrics (cont)

Mothers health
History of malaria
Died in childbirth
T.B. activity
C.A.
Mother's mother's health
Death-heart trouble
Mother's father health
Business
Ages of death
Misc.
Car accident
Fainting spells
High Blood pressure
Possible C.V.A.
Headaches
Anemia
Health good
Heart
Mother
Emphysema
Civil Service
Heart attack
Car accident
Diabetes
Chronic infection
Heart Disease
Thorasoplasty
Father's father living
Living
Infection
Living
Industry
Cerebral hemorrage
Before marriage
Education

FAMILY SOCIAL

Psychology
Realistic parental attitudes
Informant reliable
Parental guilt
Concerned about separation
Relates c̄ other children
Informant-mother
Parental over protection
Fear of parental punishment
Informant-father

FUNCTIONAL SKILLS AND BEHAVIOR JUDGEMENTS

Neurology

Toilet trained
Ride a bicycle
Slurred
Obeys oral commands
Tongue movements
Flattened appearance
No words
Gaining attention of S
Good speech
Buttons clothes
Identifies small objects
Feeds self
Co-ordination
Tone
Stance
Braille, reads
Types
Hyperactivity
Pronounciation
Alert
Articulation
Locate heart
No speech
Concentration
Tongue position
Poor appetite
Bilateral grasping
Dress self
Gait
Follows light
Tandem walking
Observation
Eye preference, reading
Speech babbles
Co-operative
Phonation
Tell left from right
Speed
Gouges eyes
Limited
Wets bed
Grunts
Ties shoes
Handles small objects
Chews
Center of balance
Follows light
Walk
Read

Pediatrics

Regressing in Behavior
Toilet trained
Extreme hyperactivity, resist earphones
Communication
Stopped in past year
Pull up
Lack of speech due to lack of feeling
6 months to train
Seems incapable of abstractions
Progressing
At school
Says words
Lack of verbal communication
Says words

FUNCTIONAL SKILLS AND BEHAVIORAL JUDGEMENTS

Pediatrics (cont)

Undetermined ach. potential
Regressed
Not walk
Never talked
Cried spontaneously
Talkative
Drinks from glass
Not fulfilling potential
Attentive
Rollover
Sit up
Supervised only
Crawled
Habits
Bites nails
Temper tantrums
Stepped in past year
Eating problems
Sentences
Not trained
Co-ordination-hands
Drinks from glass
Forces self conversationally
Head control
Mental retardation
Outdoor play
Walked
Athletic
Rocks
Sleeps well
Lack of communication
Talked
Lack of understanding
Said mama but stopped
Active baby
Forces self physically
Generally normal
Slow
Emotionally well be balanced
Stood
Campfire girl
Eye control
Sucks thumb
Dislikes being alone

Ophthalmology

fixation
Unco-operative, interior exam, not poss.
E chart
Mental retardation

ETIOLOGICAL FACTORS

Neurology

Disease bacterial meningitis
R.L.F.
Medications taking
Toplasmic encephalitis
Retinitis pigmentosa
Brain damage
Encephalitis

Pediatrics

R.L.F. at one year
Brain damaged
At 2 mo.
Toxoplasmosis
Rubella Syndrome
Congenital defect

Ophthalmology

R.L.F.
Glaucoma
Meningitis
Retinitis pigmentosa

TREATMENT

Neurology

Surgery-hear
Artaine
Glasses
Eyes
Prosth.
Leg braces
T & A
Hearing aid
Eye strength

TREATMENT

Pediatrics

Resuscitation necessary
Length of days in incubator
Polio
Both eyes
Hydrocoele
Enucliation
EEG
Palate, soft, repaired
Chicken pox
Incubrator
Transfusions
Cataracts
Tonsilectomy
Heart
Cleft palate
Have been repaired
Has had usual ones
German measles
Oxygen
Takes vitamins
One eye
Inguinal hernia
Ductus arteriosis
Burr holes
Removed
D.P.T.
Small pox

Ophthalmology

Enucleation
Surgical result
Aphakic
Aphakic correction
Wears glasses

RECOMMENDATIONS

Psychology

Play therapy
Help c̄ separation c̄ mother, for residential
Linguistic experiences
More time to examine by E
Physical skills
Prognosis guarded
Special class, live home
Institutional placement
Lifelong sheltered environment
Conditioned approach to learning
Skills via tactile methods
Friends
Develop interests
Periodic re-evaluation
Techniques and materials, not specified
Regular class room
More stimulating environment
Protective care
Needs acceptable social habits
Adult outside family
Residential facility
Facility for deaf-blin
Skills via visual methods
Vocational counseling
Parental counseling
Self-help skills
Individual attention-firm, patient
Limited goals
Continue present placement
Relieve parental guilt and resentment

Pediatric

Referred to cardiologist
Better control of seizures
Improve diet
Increase protein
Chromosomal study
Tetanus
Small pox
Mother GYN exam
Endocrinologist
Parents attention to medication
Vitamins
Should immunize against
Diphtheria
Up to date
Guidance
Geneticist
Intensive family casework
Dental care
Measles
Polio
None

RECOMMENDATIONS

Pediatric

Referred to cardiologist
Better control of seizures
Improve diet
Increase protein
Chromosomal study
Tetanus
Small pox
Mother GYN exam

Endocrinologist
Parents attention to medication
Vitamins
Should immunize against
Diphtheria
Up to date
Guidance

Geneticist
Intensive family casework
Dental work
Measles
Polio
None

Opthalmological

OPTHAIMOLOGICAL

None at present
Refraction c̄ drops
Fix glasses frames
Surgery
Discission

Glasses
c Anesthesia if necessary
Medical
Progressive

Estimated possible correction max.
Teach E chart
Iridectomy

Audiology

Total deafness
Brain damage
Auditory response
Wears hearing aid
Try different aid

Normal limits
Recruitment
Auditory recognition
Co-coperate c̄ examiner
Rec. candidate for hearing aid

Perceptive loss
Anxiety-listening
Central dysacusis, possible
Speech therapy
Special auditory

APPENDIX C

TERMS USED IN FINAL ANALYSIS

General Information

Neurology

Adopted
Age (1)
Birth Date
Chronological age
Comparison
Consanguination
Foster mother
Height
History
History of triplets
Siblings
Siblings history
Siblings # rank
Twin
Twin brothers
Weight

Pediatrics

Age (5)
Ages of death (4)
Before marriage
Birthdate (2)
Caught hand in wringer (1)
Cause unknown
Child
Date of Exam (2)
Deaf
Died in utero (2)
Education (1)
Father (1)
Foster parent
Gestation (2)
Grandparent (7)
Living (4)
Mother
Mother's siblings (3)
Occupation (7)
One of triplets
Other (still born)
Other pregnancies (1)
Pregnancy
Premature
Pre-natal history
Presentation
Previous
Re-evaluation
Reliability
Sibling (4)
6 months (of age)
Supervisors (informant) (1)
Telephone operator
Twins (3)
Vertex
Weight (1)

Ophthalmology

Audiology

Social Work

Age
Bookkeeper
Child co-operation
Child's birth date
Divorced or separated
Farmer
Father's education
Grandfathers
Grandmothers (3)
Mother's education
Normal deliveries
Number of deliveries
Number of parents living (4)
Number of pregnancies
Parental co-operation
Production scheduler
Siblings (brothers) (sisters)
Store manager
Title examiner
Vice president of construction company
Well adjusted family

Etiological Factors

Neurology

Accident (1)
Bacterial Meningitis (1)
Brain disease
Chicken pox
Choreo retinitis
CNS disease (1)
Congenital anomalies (1)
Congenital cardiac
Congenital glaucoma
Congenital heart disease
Congenital sinuses
Encephalitis
Exanthema
Fall
Gastrointestinal upset
Generalized
Head injury
High fever 2 days after birth
History of heredo-familial disorder
Illness (1)
Jaundice
Kernicterus
Loss of consciousness
Measles
Mother in accident while pregnant
Ocular disease
Paternal cousin deaf
Peripheral disease
Pneumonia
Premature
Retinitis pigmentosa
Rlf
Scarlatina
Toxoplasmic encephalitis
Trauma
Whooping cough

Pediatrics

Anomalies
Chicken pox
Congenital defects
Fell
German measles (3)
Glaucoma
Kidney infections
None reported at birth
Pneumonia
Prematurely born
Progressing retinitis pigmentosa
Retrolental fibroplasia (3)
Scarlatina
Serious illness

Ophthalmology

Band keratitis
Congenital cataracts
Glaucoma
Iritis
Meningitis
Optic atrophy
Retinitis pigmentosa
Rlf (1)
Rubella retinitis
Uveitis

Audiology

Environmental deprivation

Psychology

Social Work

Blindness at 7 months
Breathing problem at birth
Chicken pox
Convulsions at birth
Extensive labor (1)
History of epilepsy
Measles
Measles, german measles (1)
Mother had scarlatina during pregnancy
No parental care (1)
Premature
Prolonged bleeding after conception
Visual problem at birth

Child Pysical Normal

Neurology

Achilles tendon contracts
Adductors, flexors
Attenuated vessel eye
Basal ganglia
Biceps right and left
Bilateral & symmetrical
Bilateral facial
Bilateral gazing
Birth marks
Blood pressure
Bone (1)
Brachioradial R & L
Brain stem
Bulging
Caudal
Cerebellum
Cerebral cortex (1)
Cerebral hemisphere (1)
Confrontation visual field
Conjugate lateral gaze
Cornea (4)
Cortical sensory
Cranial nerves (1)
Deep tendon reflex
Dentition
Dermal sinuses seen
Dorsiflexion right ankle
Dysmetria
Elbow extensors
Extensor
Face dominance
Facial
Facial feature (1)
Facial jerk: radius
Facial sensation
Facial symmetry and asymmetry
Flexor (1)
Fontenels
Fundoscopic exam
General CNS
Globe
Glutei flexors
Ham string
Head
Head contour
Hearing (2)
Heart
Hip flexion
Husky
Knees (1)
Lens
Limb tone (3)
Locate heart
Lower centers
Macula identified
Medial
Midline of skull or back
Motor system
Movement artifacts
Muscular strength
Neck
Nerve deafness
Neural axis
Neuro muscular development
Neurological investigation
No hearing
Ocular axis
Optic disc identified (1)
Palsy
Parieto occipital area
Paroxymal activity
Pharynx
Physiologic
Pigment identified
Pincersuedonism
Pms
Post frontal predominance
Pupil (1)
Quadriceps muscle
Range of extra ocular movements
Range of neck motion
Rate of brain growth
Retina
Retinal periphery
Right occipital area
Sensation
Sensory exam (1)
Serology
Size
Size of ocular globes
Skin
Skull (2)
Skull palpation
Special sense
Spinal fluid
Spine
Steady on feet (1)
Sternocledomastoid muscles
Supple
Temporal lobe
Tension
Thigh flexors
Tickle response (sensory
Tone
Tongue (1)
Tongue position
Trapezius muscles
Triceps R & L
Vessels identified
Visual (1)
Visual fields
Weight (1)
Well nourished

Pediatrics

Anatomical findings
Atelectasis
Below average
Bowels (1)
Breathing (3)
Color
Cord
Dentition (2)
Fingers
Gastro-intestinal
General health
Grade II systolic
Head position
Hearing (2)
Heart (1)
Hips
Intra-crania
Length at birth
Lungs
Mucous
No rash
Peripheral blood
Pes varus
Physical development (2)
Reached plateau in development
Regurgitation (3)
Subdural
Symptomatology (1)
Temperature
Upper respiratory tract
Urine
Vision (6)
Weight gain (1)

Ophthalmology

All pupil (11)
Anterior chamber
Arteries
Bone corpuscles
Central vision, uncorrected distant (4)
Chamber
Colloidal changes
Conjunctival sack
Convergence
Cornea (3)
Depth normal
Details
Disc
Distant vision
11 o'clock
Extreme left retina
Feel for light
Field (1)
Foveal reflex
Functional retina
Fundi (3)
Globe
Interior
Intra ocular pressure (1)
Iris (1)
Large object and movement
Lens
Maculae normal (2)
Macular area
Media
Membrane
Movements, lateral downward
Near vision
No gross abnormalities
No visible pathology
Normal occurrence
Normal vision (2)
Ocular
O.D.
Opening
Optic disk (1)
O.S. (1)
Periphery of the field
Posterior membrane
Retina
Size normal
Tension normal (1)
12 o'clock
Vertical
Vitreous
Vitreous clear
VOU (1)

Audiology

Canals clear
Congested with upper respiratory
Ears-normal
Fluid
Landmarks good
Neurophysiological
Normal limits
Nose
Not remarkable
Speech reception thresholds
Tympanic membranes

Psychology

Balance
Gross motor
Locomotion
Mouth primary organ physical
Reflex behavior
Right hand preference
Tactile

Social Work

Child Physical Abnormal

Neurology

Acute in finger joints
Anal & bladder function
Anemia
Aphakia
Apnea
Asymmetry of limbs
Ataxia
Athetoid
Athetotic move
Blind
Blue (internal anoxia)
Brain damage
Bulbar palsy
Cardiac deficit
Cataract
Cerebellar dysfunction
Cerebral damage (2)
Cerebral diplesia
Cerebral sclerosis
Cervical spine
Choreic movements, face
Cleft palate
CNS involvement
Cock-up foot
Constrictions visual field
Cornea enlarged
C.P. (1)
Deaf
Defect upward
Degenerative
Dehydration
Delayed development
Depression, eyes
Dermal sinuses seen
Diarrhea
Ear aches
Ecchymosis about eyes
End organ disease
End organ ear disease
Eye turned red
Facial sensory loss
Finger fracture
Flat feet
Flattened appearance
Frontal boning joint and muscle pain
Glaucoma
Glioma of brain stem
Head misshapen
Headaches
Hearing impaired
Heart murmer
Heart trouble
Hedged up skin
Hemiparesis
Hernia
Hip joint - hyper extensible
Hyperextensible
Hypotonic
Infection
Intracranial pressure
Jaundice
Keyhole deformities
Knees buckled in
Lateralized weakness
Lenticular opacity
Lung congestion
Malposition of hip bilaterally
Microcephaly
Microphthalmic
Motor deficit
Mottled discoloration
Myopia
Neuro-cerebral hypoxia
Neurological deficit (1)
Neuromuscular involvement (1)
Neurone lipoidosis
No globe
Nystagmus
Obesity
Optic atrophy
Organic
Out toeing
Palate elevated
Pale disks
Palpebral fissure, small
Paralysis
Parietal occipital involvement
Paroxysmal disorder
Perforated opening in parietal area
Postictal paralysis
Progressive
Progressive neurological (1)
Prominent joints (1)
Prominent talus
Proprioceptive loss
Pupil deformity keyhole
Pupillary response
Rectus muscle weakness
Resistant to pressure
Respiratory infection (1)
Retinal re-attachment
Right hemi-paresis
Rotational
Scissoring
Seizures
Sensory abnormalities
Sensory loss extremities
Spacticity, lower extremities
Spina bifida
Strabismus
Subdural optic atrophy
Temporal cranial effect
Tongue, atrophy (1)
Tongue protrudes
Tremor
Underweight
Vertigo
Visual-deficit (1)
Vomiting
Wasted (tongue)

Pediatrics

Anemia
Aphakic
Apnea
Ataxic
Blindness (13)
Bronchitis
Cataracts (5)
Cerebral palsy
Cleft palate
Colic
Complications
Congestion
Congestion (nasal)
Constipated
Cough
Cyanosis
Deafness
Deformities
Dehydration
Didn't hear
Difficulties
Discharge (nasal) (1)
Dysplagia of hips (1)
Ear discharge
Ear infection
Enlarged thymus
Eruptions
Erythroblastosis (1)
Exanthematous
Exema
Eye problem (14)
Gagging (1)
Gastrointestinal upset (3)
Glaucoma (1)
Hearing loss (7)
Heart condition (5)
Hernia
High fever
History of dysentary
Interventricular septal defect
Involuntary movements (1)
Jaundice
Jerking
Kernicterus
Kidney infection
Lack of development
Leg fracture
Microphthalmia
Mucous
Myopia
No eyes (1)
Otitis media
Pain in head
Partially sighted (2)
Patent ductus arteriosis (2)
Pneumonia (1)
Prone to infection
Pulmonary stenosis
Rash (1)
Respiratory distress (1)
Seizures (4)
Semi comatose
Skin discoloration
Spasticity
Subdural drained
Subdural hematoma
Thrombocytoxemia
Vomiting (1)

Ophthalmology

Aphakic
Astigmatism
Atrophy
Bilateral microphthalmus (1)
Cataract (7)
Central vision & correction
Cloudy
Coloboma
Constriction (1)
Convergent squint & strabismus (7)
Corneal scar
Cyst on the iris
Debris in anterior chamber
Discharge
Elevated to finger pressure
Enucleation
Exotropia
Fundus lesion
Hazy
Homonymous hemianopsia
Hyperopia (1)
Intermittent
Intra-ocular tension
Irregular
Lid adhesion nasally
Light perception (4)
Limited temporally
Mass
Microphthalmic (1)
No vision, blind (2)
Nystagmus (5)
Opaque
Optic nerve lesions
Other handicapping factors
Photophobia
Phthisical
Pigment change
Pigmentary changes
Pupil occluded
Retina lesions
Retinal
Shadow perception
Socket clean (1)
Staphloma
Suppressed vision
Synechine

Audiology

Adenoid mass
Brain damage
Central dysacusis, possible
Disturbance in auditory retension
Estimate loss
Excoriation in cochlea
Otitis media (1)
Perceptive loss
Sensorineural loss
Some hearing, suspected (1)
Total deafness

Psychology

Social Work

Bronchitis (2)
Cataract and surgery
Cerebral palsy
Cleft palate at birth
Congenital blindness
Hearing loss
Heart murmer

Child Behavioral

Neurology

Able to make way about (1)
Active toss
Advance the leg
Affect
Age walked
Agitated
Alert
Aphasia
Aphonia
Appears to hear (13)
Arching back
Arm swing
Articulation (3)
Attempted grasping (2)
Attend to pill
Attention span (2)
Attentive
Auditory difficulties (1)
Auditory perception
Auditory stimuli
Babbles
Balance (2)
Bangs objects together
Blindisms
Bumps into things
Buttons clothes
Capacities
Care of personal needs
Center of balance
Cessation of speech
Chews
Clumsy
Communication disability
Comprehending
Control of head
Co-operate
Co-ordination (2)
Count
Crawling
Cries
Developed language (1)
Discriminatory
Distractable
Do up buttons
Drags leg
Dress self
Dysarthria
Emotionally labile
Enjoys sound
Erratic (1)
Establish social relationships
Examines objects
Explore (1)
Expression
Expressive gesture
Extend neck
Eye preference (2)
Facial movements
Feeds self (2)
Fetch a toy
Finger dexterity (3)
Finger signs (1)
Finger to nose
Fix on examiner
Flex elbows
Fling fingers
Fling limbs random fashion
Follows light (3)
Follows person
Friendly
Frustration
Functional
Gait
Gaining attention of examiner
Gesturing
Grasping defect
Grimacing
Grinds teeth
Groping
Gross sounds (3)
Gutteral whisper
Handedness (2)
Happy (2)
Head banging (1)
Hearing defects
Heel to shin
Holds things (1)
Hop
Hyperactive
Hyperactivity (3)
Hyperventilates
Hypoactive
Identifies written numbers
Immobile
Inattentive
Inattentive to sounds
Incontinent B & B
Independent
Jerky
Learn basic skills
Level of function
Less active
Likes music
Likes vibration (1)
Limited
Localize touch stimuli
Looks at hands
Loss of use
Make contact with person
Mental ability
Motion passive or active
Motor adapted social (1)
Motor capacity
Motor speech & docile behavior
Mouths and bites objects
Moved little
Moves hand before eyes
No auditory improvement
Nods head
Normal skills
Normal tone
No sound
No words
Obeys commands (3)
Object recognition (1)
Opisthotonus
Outstretch posture, hands (1)
Palatal movement
Perception of
Perfect pitch
Persists at tasks
Phonation
Pica
Pick up objects
Playful
Point to parts of body
Posture
Posturing
Print size plus
Probing
Range of Activity
Reaches for food
Reach for small objects
Reach for things
Reacted to touch
Read
Reading distant
Reads lips
Recalled
Recite alphabet and count
Recognized
Ralates to people
Repetitive movements (2)
Responds to pain
Responds to father's voice

Neurology

Respond to speech
Restless
Restricted movements
Retarded
Rhythm
Ride a bicycle
Rolling (2)
Run
Screams
Sees gross objects
Sees small objects
Sense of rhythm
Sensory Stimulation
Shy
Simultaneous stimulation
Sing song
Sit alone
Situational response
Skillful manipulating
Sleep pattern
Smells food
Sniffs objects
Snoring respiration
Solve puzzles
Speech abnormality (2)
Speed
Stack blocks
Stance
Stands
Startle reaction
Stereotype gesture
Strength (2)
Struggling
Symmetrical stimuli
Tactile finger discrimination
Tactile sensations
Tandem walking
Tantrus
Tell L from R
Tells time
Throws toys
Ties shoes
Toilet trained
Tone discrimination
Tremulous movements
Try to pull up
Tuning fork
Turns over
Types
Understands (1)
Unintelligible
Unintelligible voice
Unsteady
Use information
Uses arms and hands
Uses cup
Verbal communication (7)
Vibrations
Vibratory sensation
Visual disorder
Walk
Watch tick
Well oriented
Wets bed
Whines
Writes (1)

Pediatrics

Accidents
Active (1)
Attention to sound (2)
Babbles
Behavior pattern
Can't walk
Co-ordination (1)
Crept (2)
Cries (3)
Destructiveness
Difficulty seeing (1)
Didn't do self-help procedures
Discipline
Does not speak
Doesn't think he hears
Dress self
Drinks nothing but water
Eating habits (4)
Eating problems (3)
Emotional disturbance
Enuresis
Eye control
Follows commands
Gait
Grasping (1)
Head banging
Head control (5)
Hearing problem (1)
Hyperactive (1)
Inability to channel activities
Inability to get message across
Inability to hold interest
Inability to learn
Intelligible sounds
Irritable
Lack of communication
Lack of co-ordination
Lack of understanding (1)
Language
Listless
Loss of speech
Made sounds (1)
Mentally alert
Mental retardation (2)
Not making progress
Not trained
Not understandable
Not walk
Perform purposeful tasks
Pull up (1)
Quiet
Recognize (parents-strangers)
Regressed
Regressing in behavior
Regularity
Removes clothes
Respond normally
Respond to spoken word (3)
Roll over
Scooted
Screeches
Seems incapable of abstractions
Shaking episodes
Sign
Sit up
Six (6) months to train
Slow
Speech(5)
Spit up (1)
Stood (1)

Pediatrics

Stopped (1)
Stopped walking
Thumbs in ears
Tired
Toilet trained (1)
Touch
Tugging
Twitching
Undetermined achievement potential
Undeveloped potential
Unsteady
Walked
Whiles

Ophthalmology

Constant motion
Exceedingly difficult to examine (2)
Fix on small objects (5)
Functional
Head twist to left
Large objects, close (2)
Mental retardation (1)
Reach for objects
Sees movement
Sees shadow
Squinting
Will not wear glasses

Audiology

Anxiety
At 100 db
At 30-40 db
Auditory memory span
Auditory recall
Auditory recognition
Auditory response
Conditioning, kinesthetic
Decading
Delayed response
Discrimination (2)
Echolalic
Emotional disturbance
Eye blink
400 cycles
Localization
Music (1)
Non-fluency (1)
Not possible to test
1000 cycles
Recruitment
Response to mother only
Response to soft sounds but not loud
Retardation
Sound effects, testing (2)
Speech range response
Speech response threshold with aid
Startle responses
200 cycles
Whisper
White noise
With background noise

Psychology

Able to grasp task easily
Abstract verbal
Adaptive behavior
Adequate stimulation
Affectionate
Alone too much
Anxiety
Anxious about bowels
Appears well adjusted
Assumes leadership with friends
Attacks physically
Attention span (1)
Attentive to noises
Autism
Babbling, single syllables (1)
Banal
Bathing
Block tower
Brain damage possible
Can avoid objects
Cannot tolerate restrictions
Changes response only if physical stimulation
Charm
Chores - self help
Clean
Clings to parent
Collisions
Communicates by lip-reading
Communicates via writing
Communicates with gestures
Communicates with tactile signals
Communications
Communication via finger writing
Communication via writing
Completes task if demonstrated
Completes tasks
Concrete approach
Conflict
Contact with objects
Contact with persons reduces tensions
Controlling behavior
Controls examiner
Co-operative
Copies circle, cross
Copies E's models
Could elicit response
Couldn't name objects
Counting
Crawling only
Creative
Creative thinking
Cry
Denies handicap
Dependent on mother
Dependent on routines
Direct physical contact to motivate
Displays sensitivity to others
Dissociations
Distortions
Distractible (2)
Dress (1)

Psychology

Drops toys
Eats toys
Ego controls remain intact
Emotional disturbance
Emotionally disturbed
Encourage to explore
Environment an emotional level
Exhibits needs of deprived child S
Explore
Express pleasure and displeasure
Facial grimaces
Fear of being hurt
Fear of failure
Fear of parental punishment
Fear of rejection
Feels angry
Figure ground discrimination
Follows direction
Friends
Frustration if not understood
Functional I.Q.-estimated
Gestures
Gestures-pull, etc.
Goal-directed behavior
Good memory
Grasps objects
Grinds teeth
Gross motor play
Has adult contacts extra-familial
Head banging
High self-esteem
Holds objects close to eyes
Hostile if ignored
Hums and sings (4)
Hyperactive
Identifies objects (2)
Identifies real objects
Identifies representative models
Imitation
Inaccurate body image
Increase in random movement if adult is present
Independence training
Independent approach to tasks
Infantile behavior
Initiative
Insecure
Interest
Lacks capacity
Language
Language of age (1)
Learn perceptual-discrimination
Likes being alone
Likes noise
Limited abstractions
Limited generalization
Limited reasoning
Limited vocabulary
Little speech or sound experimentation
Low frustration tolerance
Manners-good
Manipulate objects & people
Mature
Memory tasks
Mobility patterns
More responsive with stimulation
Motivation
Motor skills well-developed
Names simple objects
Negative self concept (3)
Negativistic
Negativism
Nods head
No response to environment
Not related to environment
On back using heels for leverage
Orientation
Oppositional behavior
Passive
Passive resistance (1)
Perception of quantitative changes
Perseveration (1)
Persistence
Physical skills
Piles blocks
Play observation (1)
Problem in neurological perception
Psychological preparation
Purposive behavior
Puzzles
Rebels
Relates with other children
Repetitive block play
Responds to commands
Responses to mobility or sound
Responses to commands
Restless
Retardation
Reversals
Ritualistic behavior
Rocks smells toys
Rote learning
Rote memorization in reading
Sat
Screams
Seeks E's attention
Self-critical
Self help skills (2)
Self stimulating behavior
Sensitive to differences in texture
Sex, identifies
Show creative thinking
Simple problems, add & subtract
Sits alone
Sleep as response to E.
Social development
Solitary play
Speech
Stairs, one foot at a tim
Stands alone
Stereotyped language
Stubborn
Synthesizes activity (1)
Systematic approach (2)
Systematic approaches
Tactual cues
Teasing with examiner
Technical skills
Temper tantrums
Tenacious
Throws toys
Thumb sucking
Timid S
Toilet trained
Traces words
Trusts others
Uncommunicative
Understands (2)
Understands concepts
Understands questions
Understood task
Unresponsive

Psychology

Use of pencil
Uses mouth in identification
Uses neologisms
Uses smell in identification
Verbal symbolism
Violent tantrums
Vocational aspiration, realistic
Walk, age starting (2)
Watches T.V.
Well co-ordinated
Well defined
Whining (1)
Withdraw (1)

Social Work

Academic
Adequate social
Bottle fed
Comprehensible speech
Dresses self
Eating problems
Eats by self
Emotionally disturbed
Good appetite
Hyperactivity
Makes sounds
Responses to sounds
Severely handicapped mentally
Suspicion of retardation
Temper tantrums
Toilet trained (1)

Diagnostic Descriptive

Neurology

Abdominal reflexes
Abdominal skin reflex
Adductors, flexors
Basic sleep record
Biceps jerk
Cardiac fluoroscopy
Cerebrospinal fluid exam
Clonus
Electrocardiogram
Facial jerk
Gag reflex
High voltage spikes
Hoffman sign
Hyperreflexia
Jaw jerk
Laurence Moon syndrome
Lumbar puncture
Pathological
Plantar responses
Pneumoencephalogram
Pupil reflex
Red reflex
Rhomberg
Rooting reflex
Serologic studies
Skull x-rays
Sleep spindles
Slow discharge
Snouts reflex
Spike activity
Stretch reflexes
Sucking reflex
Superficial abnormal reflexes
Toe signs
Treponema pallidum test
Xanthochromatic spinal fluid
X-ray abnormal

Pediatrics

Osteometry
Refraction
Skin test
X-ray

Ophthalmology

E chart (2)
Examination with anesthesia
Finger discrimination
Refraction
Tonometer (1)
X-ray, skull

Audiology

Block, pegboard
Bone conduction
EEG audiometry
Field testing
Informal tests
Lombard effect
Psychogalvanic skin R.T.
Pure tone air conduction

Psychology

Bender-Gestalt Visual Motor
Block tower
Catell Infant Intelligence Test level
Columbia Mental Maturity Scale I.Q.
Columbia Mental Maturity Scale M.A.
Diamond
Difficult to evaluate I.Q.
Digit span
Formal tests
Goodenough Draw A Man
Grace Arthur Performance
Hayes-Binet Intelligence Test
Highest sub-test
Information sub-test
Interim-Hayes Binet counting level
Knox cube tapping test
Leiter International
M.A.
Maxfield-Bucholz Scale
Maze tracing
Merrill Palmer Scale of Mental Levels
Michigan Pictures
Nebraska Test of Learning Aptitude
Object completion
Object completion test
Pegboard

Psychology

Performance tasks, I.Q. estimate
Pink tower
Poorest sub-test
Rotter Incomplete Sent Blank
Sequin form board
16 cubes
Social age (1)
Social quotient (1)
Square
Standardized procedures
T.A.T. selected cards
Verbal I.Q.
Verbal Memory Test
Verbal T.A.T.
Vineland Social Maturity
Visual Memory Test
WAIS - Adult Verbal
WISC Performance

Social Work

Family - Physical

Neurology

Age mother
Asian flu
Breech delivery
Caesarian
Delivery (1)
Duration of labor (1)
Fever
German measles (mother)
Health father
Health mother
Leakage of bags of water
Miscarried
Near term
Paranatal
Pelvic pressure (2)
Pregnancy (1)
Pre-natal
Previous caesarian
Rash
Rh father
Rh mother (1)
Rheumatic fever
Sibling intermittent vomiting
Spasmatic
Spotting
Syphilis
Systematic infection
To term (1)
Uneventful (1)
Vaginal bleeding (1)
Weight gain (1)

Pediatrics

Abortions
Accident
Adequate pelvis
Age of mother
Alcoholic
Allergies (6)
Anemia
Appendicitis (1)
Arterio-sclerosis
Asiatic flu
Backaches (1)
Bladder infection
Blood count
Blood pressure (4)
Breech
Cancer (1)
Cancer of colon
Cataracts
Cerebral hemorrhage
Coma
Combat fatigue
Complications (3)
Conception
Congenital disease
Contractions
Convulsions
Cramps
Cystic uterus
Deliver (1)
Diabetes (5)
Died age (4)
Died in childbirth
Died shortly after birth
Diphtheria (1)
Disabilities
Disc removed
Eczema
Edema
Emphysema
Fainting spells (1)
Family illness
Fatty tumor (1)
1st month of pregnancy
1st trimester
4 months
Fractured skull
Gall bladder (2)
Gastric distress
German measles
Hard of hearing
Hardening of arteries
Head injury
Headaches (2)
Health (3)
Heart trouble (13)
Heavy irregular periods
Hemorrhage (2)
Hepatitis
History of malaria
History of polio
Hydrocephalic
Illness (7)
Infarcts
Infections (3)
Injury
Killed in auto accident
Labor (10)
Living
Membrane
Miscarriages
Mother's health
Muscular distrophy
Nausea
Neo-natal conditions
Nerve deafness
Nerve injury in arm
Neuro dermatitis
No illness
1 month
Ovarian cyst
Overweight (1)
Phlebitis (1)
Placenta
Pleurisy
Pneumonia (1)
Post partum history
Pregnancies (Total)(1)
Premature
Premature separation of placenta
Presentation
Prolonged labor
Problems (2)

Pediatrics

Rash
Reaction
Respiratory (2)
Rh positive (2)
Rhythmic pains
Rupture
Scarlet fever
Self-induced
Sensitive to Rh factor
Sibling infections
6 months
Spontaneous
Spontaneous abortion (1)
Sterilization
Still birth
Stroke (1)
Swelling (hands & feet)
Syphilis
Temperature (1)
3 months
Toxemia
Tuberculosis (2)
Tubes tied
Tumor
Uterus
Virus
Visual handicap (1)
Vomiting (1)
Wasserman
Water broke
Weeks gestation
Weight (1)
Wounded in war (1)

Ophthalmology

Audiology

Psychology

Social Work

Children dying after birth
Father's health
Mother's health
Normal
Premature births
Seizures

Family Behavior

Neurology

Emotional upset mother

Pediatrics

Alcoholic
Concern about eyes
Emotionally upset
Mental disturbance
M.R.
Nervous (3)
Overexertion
Physical mistreatment
Stutterer

Ophthalmology

Peer co-operation

Audiology

Psychology

Adult outside family
Development stifled by mother
Emotional "pushing" by parent adverse effect
Only mother can understand
Parental guilt
Parental over-protection
Realistic parental attitudes

Social Work

Father doesn't take part in discipline
Indifference, father (1)
Marital problems
Mother (feelings of inadequacy) (2)

Child Treatment

Neurology

- Antibiotics
- Artaine
- Burr hole
- Cataract removed (4)
- Chest x-rays (1)
- Chloral hydrate
- Chromosome morphology
- Compazine
- Corrected with orthopedic shoes
- Cosmetic muscle operation
- Dexedrine
- Diagnostic
- Dilantin
- Drugs
- Electroencephalograph
- Excision of anterior portion
- Formal education (2)
- Frejka pillow splint
- Glasses
- Hearing aid
- Heart surgery
- Hospitalization
- Incubator
- Irrigation
- Leg brace
- Medication Needling
- Operation (2)
- Oxygen
- PKU test
- Post operative period
- Prosthesis
- Psych testing
- Rh blood study
- School for deaf
- Seconol
- Sedative
- Serum calcium
- Streptomycin
- Sulfur
- Surgical care
- Surgical therapy diagnosed
- T & A
- Therapeutic
- Training program
- Tranquilizer
- Under anesthesia
- Urine chromatography
- Ventriculogram
- Wear lenses
- X-rays

Pediatrics

- Adenoidectomy
- Antibiotics
- B-12 injections
- Blend
- Castoria
- Casts
- Cereal
- Circumcision
- Digital
- Drops in eyes
- Eligoxin
- Enucleation
- Formulas (17)
- Gavage
- Glasses (1)
- Hearing aid (1)
- Hospitalized (2)
- Incubator (1)
- Intracranial procedure
- Intravenous fluids
- Isolette
- Lack of proteins
- Liquid food
- Mashed foods (2)
- Medication (1)
- Neurological exam
- No vegetable or fruit
- Operation (1)
- Oxygen (2)
- Penicillin (2)
- Pericolase
- Phenobarbitol
- Physiotherapy
- Polyvisol
- Protein
- Regular food (2)
- Resuscitation (3)
- Saphenous vein ligation
- Shots (1)
- Splint
- Sympathectomy
- Therapy or drugs (1)
- Transfusion (2)
- Treatment
- Vitamins
- Weaned (2)
- Well balanced diet (3)

Ophthalmology

- Glasses (4)
- Major categories
- Operations
- Surgery (8)
- Wears glasses (4)

Audiology

- Adenoidectomy
- Myringotomy
- Posterior adenoid adenopathy
- Tonsilectomy
- Wears hearing aid

Psychology

Auditory training
Communication training
Education
Now in residential school
Play therapy
Psycho therapy
Techniques for brain injured
Visual motor training

Social Work

Institutionalized
Wears corrective lenses

APPENDIX D

RECOMMENDATIONS LISTED IN REPORT SUMMARIES

Physical - Medical

- Follow-up
- Surgical treatment
- Antihistamine (1)
- Ophthalmological re-evaluation at 3 month intervals
- Treatment, sinus congestion
- PGSR testing
- Immunization (5)
- Dental care
- Further study, auditory
- Anti-convulsant (2)
- Arrestmaldevelopment
- Vaccination
- Further needling
- Diet
- No therapy
- Investigation, hypothyroidism
- Trial program
- Recommended
- Neurological care
- Orthopedic consultant
- Refraction
- Bone age
- Sedation
- Diet supervision
- Define degree impairment vision
- Judge
- Hearing test
- Two to four month intervals
- Support, abdominal muscles
- Pediatric examination, six month intervals
- Avoid upper respiratory infections
- Glaucoma test
- Selective angiocardiography
- Refraction, under anesthesia
- Diet control weight
- Intraocular tension check, right eye, anesthesia
- Investigate possibility of maternal rubella
- Vision, improve functional vision
- Individual binaural hearing aid
- Recheck, refraction
- Cardiac contition (1)
- Glasses c̄ plastic lenses
- Physical activity, exercise program (1)
- Refraction (2)
- Teach the "E" (2)
- Tendon lengthening operation
- Fourth polio shot
- Gross muscular activity, encouraged
- Electroencephalogram (3)
- Iridectomy
- Encourage food intake
- X-rays (2)
- Prescription of glasses
- Treat chronic infection, ears
- Family physician
- Nutrition
- Continuous evaluation, change, functional ability, vision
- Carry on the medication
- Corrective shoes
- Endocrine study
- Vitamin administration (1)
- Fit, cataract lenses
- Determination, anti Rh anti-body, serum
- Evaluate hearing aid
- Follow-up examination, gynecologist
- Knight-type brace
- Correct, low back lordosis
- Use prosthetic eye
- Treat otitis media
- Allergy studies
- Repeat adenoidectomy
- Cardiac catheterization
- Plastic lenses (2)
- Glasses
- Physiotherapy
- Repeated refractions
- Refer to pediatric cardiologist (1)
- Medical supervision, eye condition
- Exam OS, anesthesia
- Vaccinate
- Glasses microscopic
- Recheck tension

Physical - Medical

Revaccinate, fourth polio innoculation
Chromosome
X-rays
Refraction
Require use of corrective lenses
Further neurological testing
Rh blood type
Serum calcium
Ophthalmological, follow-up
Hearing aid should be used
Low vision aids

Psycho - Educational

Local treatment program
Begin interpersonal relationships, pre-school level
Socialization (2)
Methods for understandings
Adult-child contact
Increase correspondence, braille
Social program
Speech, language development
Recreational activities
Continue group experiences
Self-concept, personal abilities
Stimulating activities (1)
Provide speech, vocalization
Language stimulation
Provide auditory training
Speech therapy, distortion, substitutions
Intellectual challenge
Auditory stimulation (3)
Observation of changes
Speech and language therapy
Stimulation, one to one basis, for learning
Pursue higher education
Interest, aptitude test
Counseling, college life to college curriculum
Socially adaptive
Self help, social skills, program
Case work, counseling, adult-child relationship
Techniques
Educational treatment for cerebral palsied
Auditory stimulation, auditory training, language development
Training social habits
Personal social behavior
Motor efficiency
Psycho-social communication
Psychotherapy (3)
Don't force to speak
Build relationship
Continue relationship
Language development programs (1)
Educational program (1)
Program of lip reading
Contacts with deaf peer
Academic work
Concept development
Establish routine, set definite limit
Distinguish similar shapes and material (1)
Psychometric evaluation
Individual tutoring
Program to challenge, physical, exertion
Observation, behavior
Meaningful activities
Transfer manipulative skills, to form of word - symbol recognition
Structure in small group setting, living experiences
College counseling, realistic job opportunities
Choose a companion, help her become independent
College program, nine hours, emphasizing, verbal abilities
Developmental program (1)
Consistent, continuous treatment program
Use consistent techniques in school
Should combine hearing with touch
Language development program
Educational program
Self help skills
Speech
Experience, adult, consistent, warm, relationship

Psycho - Educational

Constant experience outside, adults to peers
Formal speech, language training
Develop, auditory process
Training, rather than education
Kinesthetic sensitivity
Attention span needs improvement
Functional abilities, in visual areas, auditory areas
Utilize residual vision, hearing
Develop forms of communication, non-verbal level, signs, signals
Parent should utilize, touch, auditory senses
Establish social contact, adults children
Expose to group experience
Train, self care
Program, speech & language development
Group experiences
Develop sensory abilities
Developing, auditory training
Develop independence
Develop relationship, techniques
Develop, self help skills (3)
Develop consistent training program
Enrich, experiences
Discrimination, recall
Association between auditory and factual
Tactile
Kinesthetic stimulation
Physical therapy
Program in proximity to small children
Stimulation, imitative sounds
Meaningful speech, develop consistency, increase discrimination
Made to hold his head up (1)
Academic curriculum, high interest, low comprehension, materials, structured situation
Favorable educational setting
Further schooling
Communication skills
Training, emotional control
Social adjustment
Expose to educational experiences, skills
Auditory training, variety experiences (4)
Program of auditory and visual sense training
Auditory, tactual experience, through play
Functional abilities in auditory areas
Physical self help skills
Instruct parents to stimulate, voice introduce different sound values, developing discrimination
Stimulation through music
Discrimination of words
Establish, interpersonal relationships
Train, communications
Synthesis, recall, discrimination, tactile, kinesthetic cues
Prolonged observation, to ascertain degree of retardation
Develop awareness of language, develop attention
Establish, separation, between child and parent
Continuing diagnosis
Remedial intervention
Establish, behavioral controls
Utilize live voice, through auditory training unit
Develop speech development, attempt through auditory stimulation
Occupational therapy
Techniques used, develop, emotional bond, simple play, adult-child contact
Developing awareness
Development, self help skills (1)
Develop self reliance, locomotion
Program, auditory training, responses to sound
Academic material, used in speech therapy, auditory training
Teaching needs to be clinical
Social skills (1)
Consistent education, form relationships
Psycho-educational treatment program developed
Teacher-child relation, one-to-one

Psycho - Educational

Interaction with peers
Stimulation at home
Music stimulation
Become alert, hearing ability
Self help skills, continue
Parents provide structure
Educational problems to support, teach new behavior patterns
Establish limits
Vocabulary speech, instruction
Psychiatric treatment
Play therapy, concept of limits
Integrated, communication area
Present vision, psychogenic
Previous methods continued
Auditory training, minimized
Further evaluation
Intense teaching program
Consultation, speech therapists
Involve in groups normally acting children
Develop residual hearing
Orientation - mobility skills
Program not primarily academic
Develop goal directed behavior
Meaningful learning experiences
Speak directly into her ear
Social awareness attempt
Case worker, kept in touch
Treat as hearing child
Help associate objects, sounds, touch
Provide framework of educational setting, do not involve use of gestures
Speech therapy, regular curriculum
Writing, reading program, comfortable loudness levels, not exceed 30 decibel
Mother counseling
Provide McGinnis School, language development
Set goal
Physical education programs
Treatment, await maturation
Train to use vision
Occupational therapist

Placement

Residential placement (1)
Place in residential program for retarded or emotionally disturbed children
Remain in the public school, itinerant teacher
Temporary placement, residential setting, deaf-blind
Life long sheltered environment
Trial program, adult tutor, set up limits, develop self help skills
Placement, residential program, retarded (1)
Illinois School, resource, consultation, trial placement, residential basis
Small institution
Remain, foster home
Not be considered placement possibility
Place in training situation
Admit to Perkins School
Enroll deaf-blind department, Alabama Institute for the Deaf-Blind (1)
Program, deaf-blind (1)
Continue present school individualized program, deaf-blind
Day school placement
Trial period, through local facilities
Trial placement, deaf-blind, Illinois Braille & Sight Saving School
Placement, pre-school deaf classes, receive medical help
Residential school for blind children, program, auditory disorders
Continue program, Overbrook School
Nursery program, retarded children
Foster home
Program to meet needs, severe visual loss, auditory disorder
Institutionalization, future, presently, remain at home
Urgent need in educational program

Placement

Program, treatment, Crippled Children's Hospital School
Guidance, future educational planning
Pre-school program at any level
Investigate other facilities
Firm limits, structured environment
Continue present placement, provide training, time for mother
Special school program
Needs special schooling
Place, custodial setting
Placement in situation with opportunity to contact active children, own size, schools for disturbed children
Speech and hearing class
Residential school, specializing, problem
Small classes, auditory training, school for the deaf

Family

Casework, parents (1)
Maintain case work contact, parents evaluate, interpret developments
Father's role, investigated
Intensive case work, psychiatric help for parent
Supportive counseling for family
Closer relationship, with parents
Mother counseling, supporting, permitting expression
Consultation and casework, family members
Counseling for mother
Case worker or agency help, feelings
Parent, counseling, realistically plan, future
Case work, counseling, mother
Parents, counseling, specific treatment, adjustment
Counseling, future goals, parents accepting the child
Parents counseled, reducing the amount of reinforcement to inadequate, oral communication
Counseling for mother, reverse habit dependance, facilitating transfer situations
Counseling acceptable, beneficial, mother
Counseling, both parents, changing their attitudes, developing life plan, institutional placement
Teachers, houseparents, give support
Counseling for parents
Parent counseling (2)
Offer mother guidance, techniques, material
Mother, guidance
Total needs of child and family
Child development worker, contact, parents, program of training and self help
Otological consultation for parent
Parental counseling, alleviate fears, ventilate feelings
Interpret findings
Observation, suggestion,encouragement parents, case worker
Service person, medical follow-up parents, school placement, evaluation of progress
Parent, support, counseling, intensive nature, mother-child relationship, constructive, supportive counseling
Mother, child, apart, regular basis, separation anxiety, minimized when move made
Counseling situation, established inter-family dynamics
Extensive parent orientation
Parent counseling, foster mother, setting, realistic goals, feel secure
Industrial Home for the Bline, acceptable program for parents
Intensive counseling, psychotherapy in family situation

Family

Parents counseling, formal nature attitudes, insights, specific level
Parents discontinue courses, Tracy Correspondence School
Parent counseling, relieve anxiety, opportunity, ventilate feelings, establish realistic goals
Parents, directed program, encourage, language development
Work with mother, establish consistent demands
Parents, obtain professional assistance, setting suitable goals, evaluating progress
Parent guidance, counseling, structuring, nuclear situations for transfer
Mother, opportunity, talk professional person

APPENDIX E

This Appendix is omitted from the general distribution copies of the research report because it is a training grant proposal submitted to the United States Office of Education for the preparation of specialists in multiple disabilities.

APPENDIX F

This Appendix consists of A Research Proposal to the United States Office of Education to study "The Development and Evaluation of a Behavioral Examination Protocol for Structuring the Clinical Examination of Children with Severe Multiple Disabilities." The proposal is not included in this report. A summary of the proposal may be obtained from the Science Information Exchange.